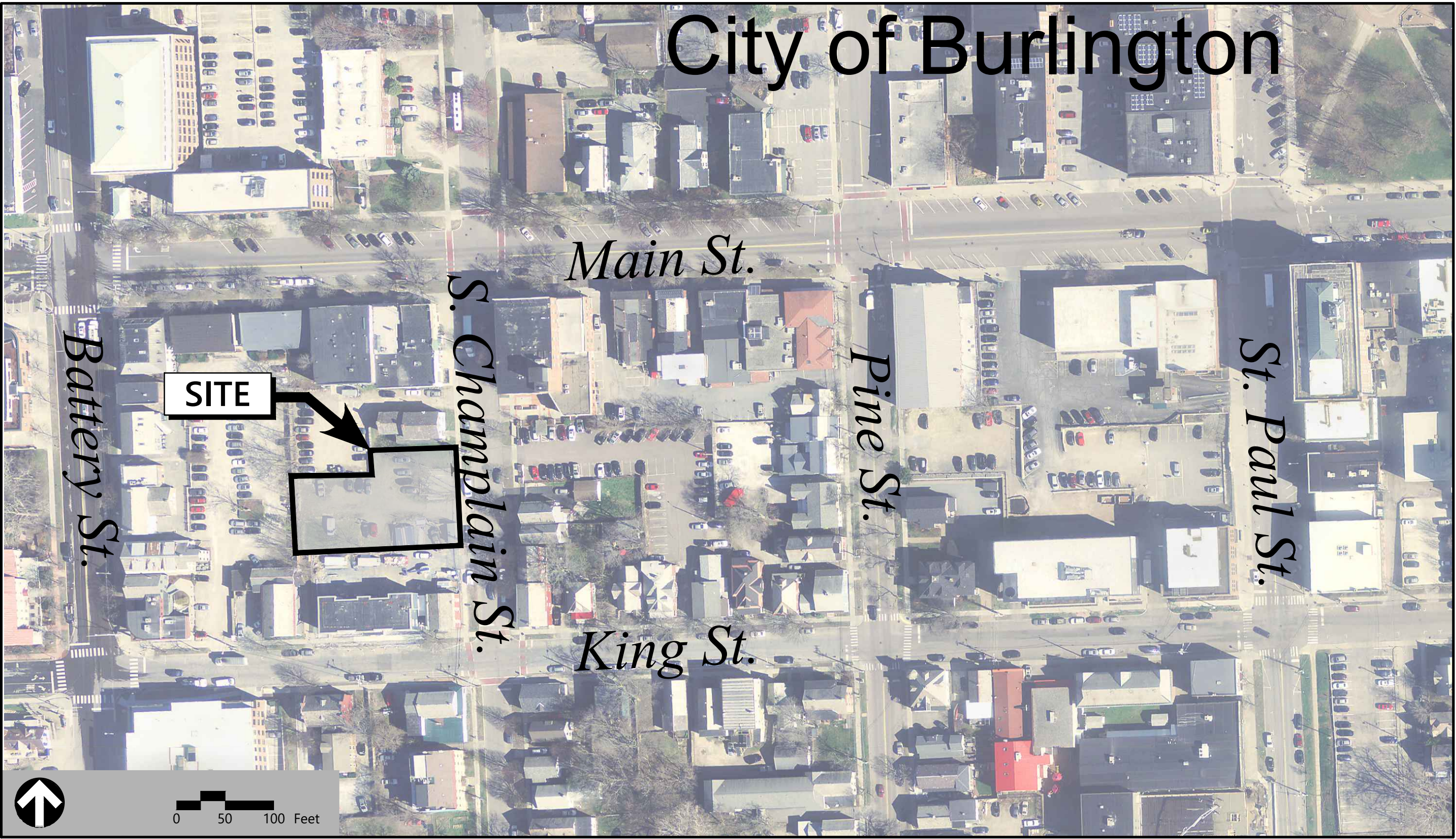


Site Plans

Issued for	Local Review
Date Issued	April 7, 2021
Latest Issue	April 7, 2021

157 South Champlain Street

157 S. Champlain St.
Burlington, VT



40 IDX Dr
Building 100 Suite 200
South Burlington, VT 05403
802.497.6100

Sheet Index

No.	Drawing Title	Latest Issue
C1.00	Existing Conditions Plan	April 7, 2021
C2.00	Site Layout Plan	April 7, 2021
C3.00	Grading and Drainage Plan	April 7, 2021
C4.00	Utility Plan	April 7, 2021
C5.00	Erosion Prevention and Sediment Control Plan	April 7, 2021
C6.01	Site Details	April 7, 2021
C6.02	Erosion Prevention and Sediment Control Details	April 7, 2021
C6.03	Storm Drainage and Utility Details	April 7, 2021
C6.04	Storm Drainage and Utility Details	April 7, 2021
L1.00	Landscape Plan	April 7, 2021
L1.01	Landscape Details	April 7, 2021
L1.02	Landscape Details	April 7, 2021
L2.00	Lighting Plan	April 7, 2021

Reference Drawings

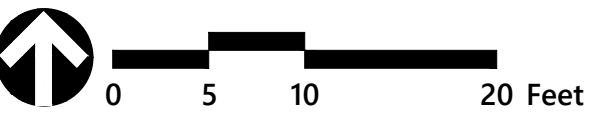
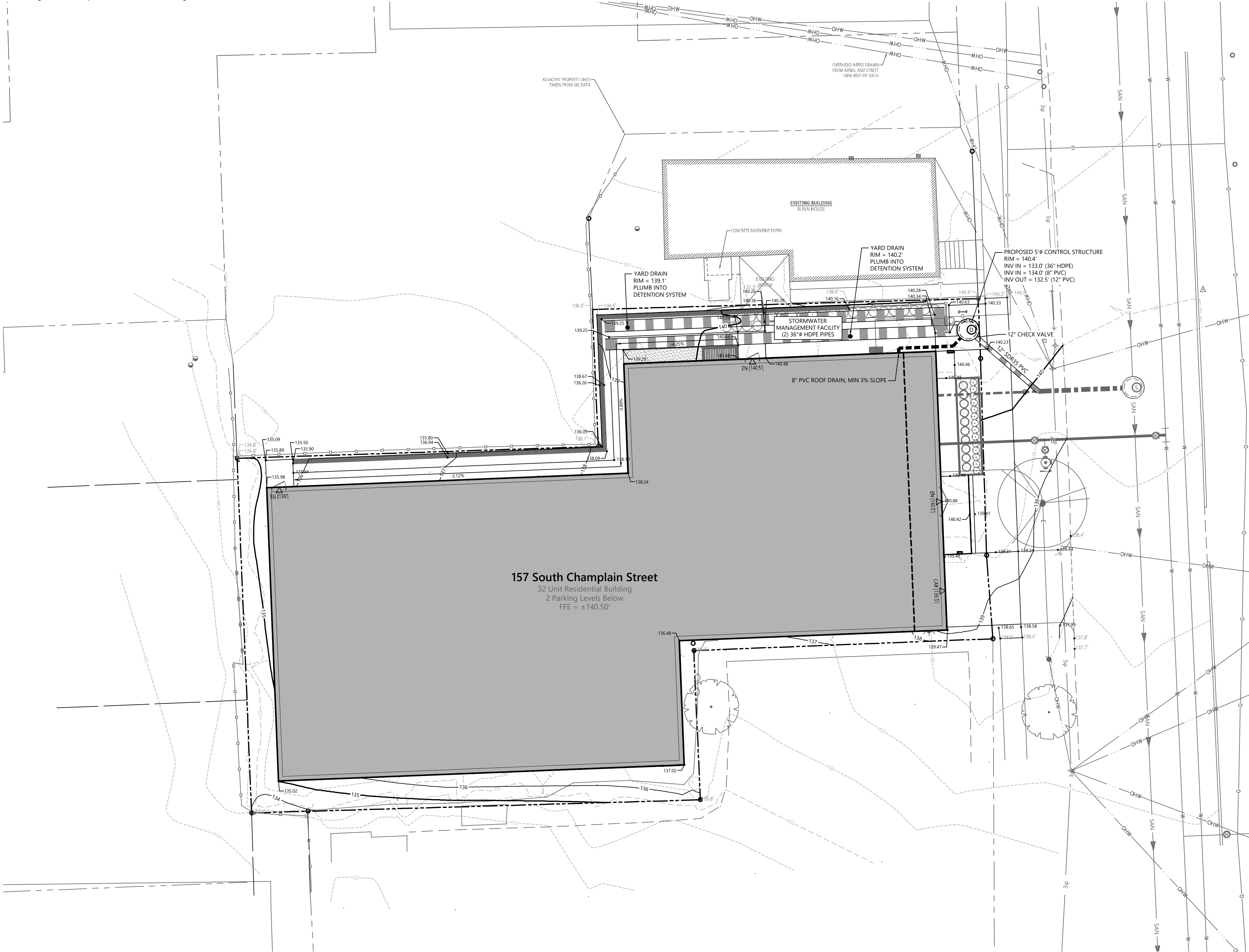
No.	Drawing Title	Latest Issue
D-1	City of Burlington Water System Details	December 11, 2018
SW1	Proposed Stormwater Management Plan	March 19, 2021
SW2	Existing Conditions Stormwater Plan	March 19, 2021

THESE PLANS AND CORRESPONDING CADD DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE FOR EXCLUSIVE CLIENT USE. THEY SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS CREATED WITHOUT THE EXPRESSED, WRITTEN CONSENT OF VHB. ANY UNAUTHORIZED USE, REUSE, MODIFICATION OR ALTERATION, INCLUDING AUTOMATED CONVERSION OF THIS DOCUMENT SHALL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO VHB.





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Drawing Title
Grading and Drainage Plan

Drawing Number

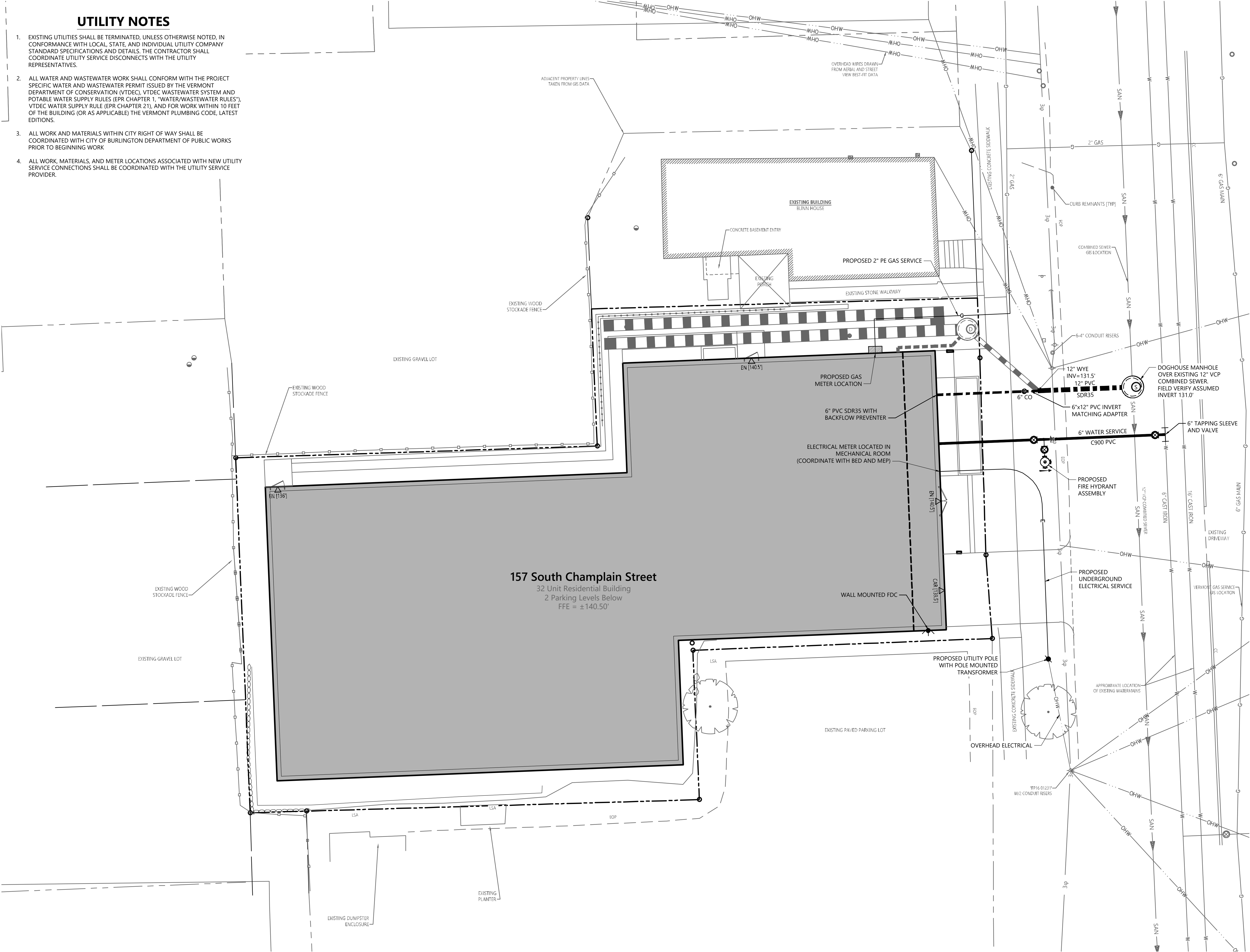
C3.00

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58429.02

UTILITY NOTES

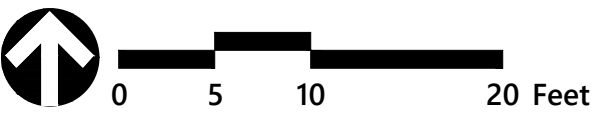
1. EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE, AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.
2. ALL WATER AND WASTEWATER WORK SHALL CONFORM WITH THE PROJECT SPECIFIC WATER AND WASTEWATER PERMIT ISSUED BY THE VERMONT DEPARTMENT OF CONSERVATION (VTDEC), VTDEC WASTEWATER SYSTEM AND POTABLE WATER SUPPLY RULES (EPR CHAPTER 1, "WATER/WASTEWATER RULES"), VTDEC WATER SUPPLY RULE (EPR CHAPTER 21), AND FOR WORK WITHIN 10 FEET OF THE BUILDING (OR AS APPLICABLE) THE VERMONT PLUMBING CODE, LATEST EDITIONS.
3. ALL WORK AND MATERIALS WITHIN CITY RIGHT OF WAY SHALL BE COORDINATED WITH CITY OF BURLINGTON DEPARTMENT OF PUBLIC WORKS PRIOR TO BEGINNING WORK
4. ALL WORK, MATERIALS, AND METER LOCATIONS ASSOCIATED WITH NEW UTILITY SERVICE CONNECTIONS SHALL BE COORDINATED WITH THE UTILITY SERVICE PROVIDER.





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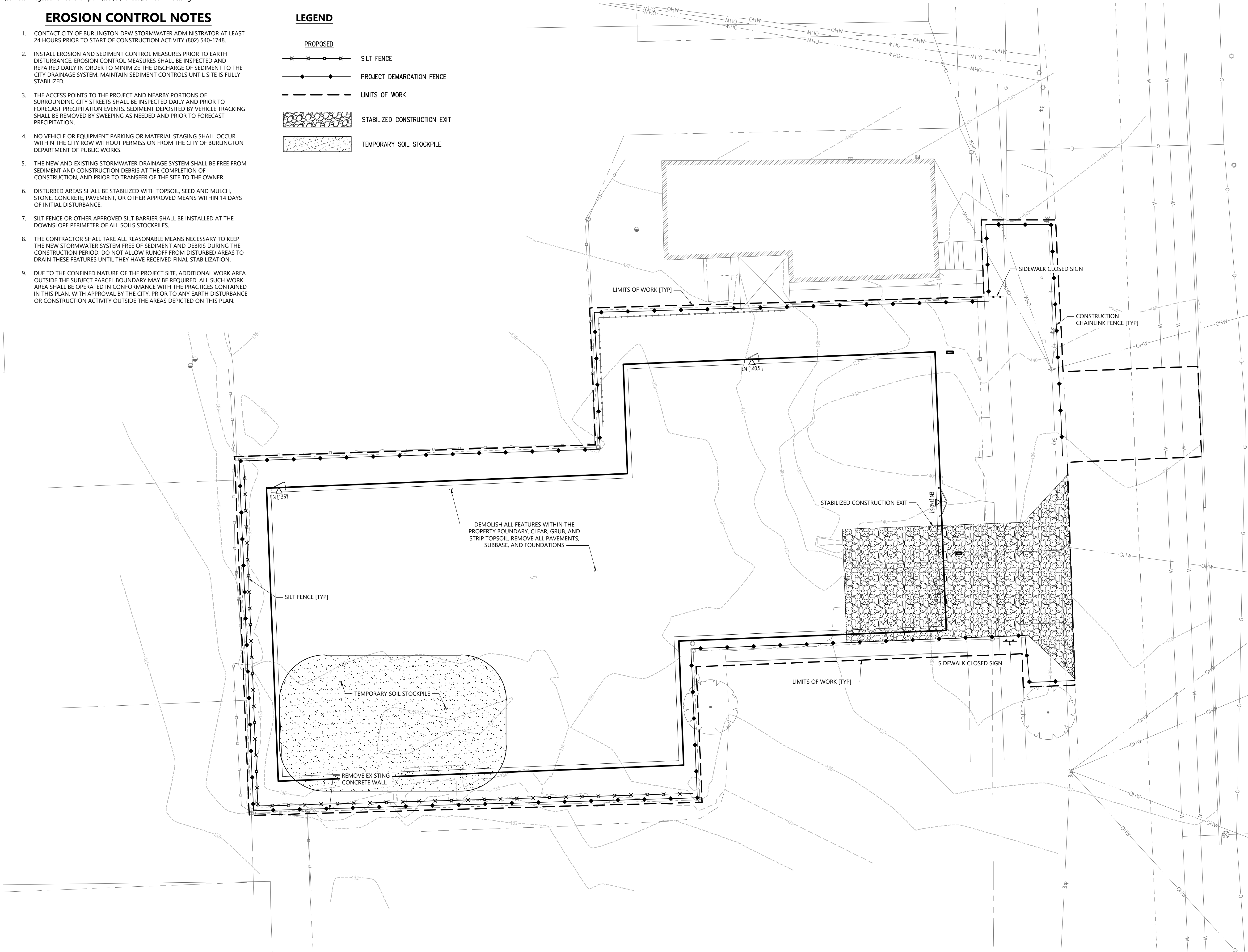
Not For Construction

Drawing Title

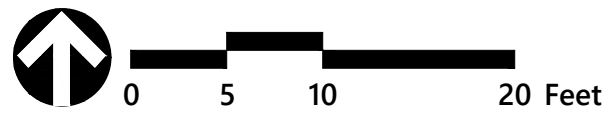
Utility Plan

LEGEND

- | | |
|---|------------------------------|
| <u>PROPOSED</u> | |
|  | SILT FENCE |
|  | PROJECT DEMARCATION FENCE |
|  | LIMITS OF WORK |
|  | STABILIZED CONSTRUCTION EXIT |
|  | TEMPORARY SOIL STOCKPILE |



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Erosion Prevention and Sediment Control Plan

Drawing Number

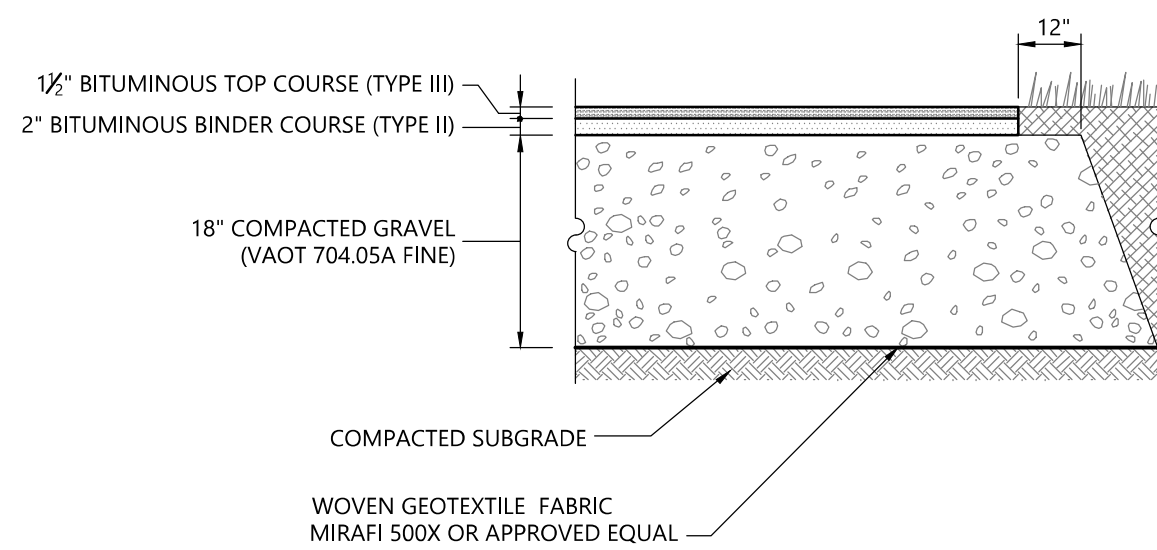
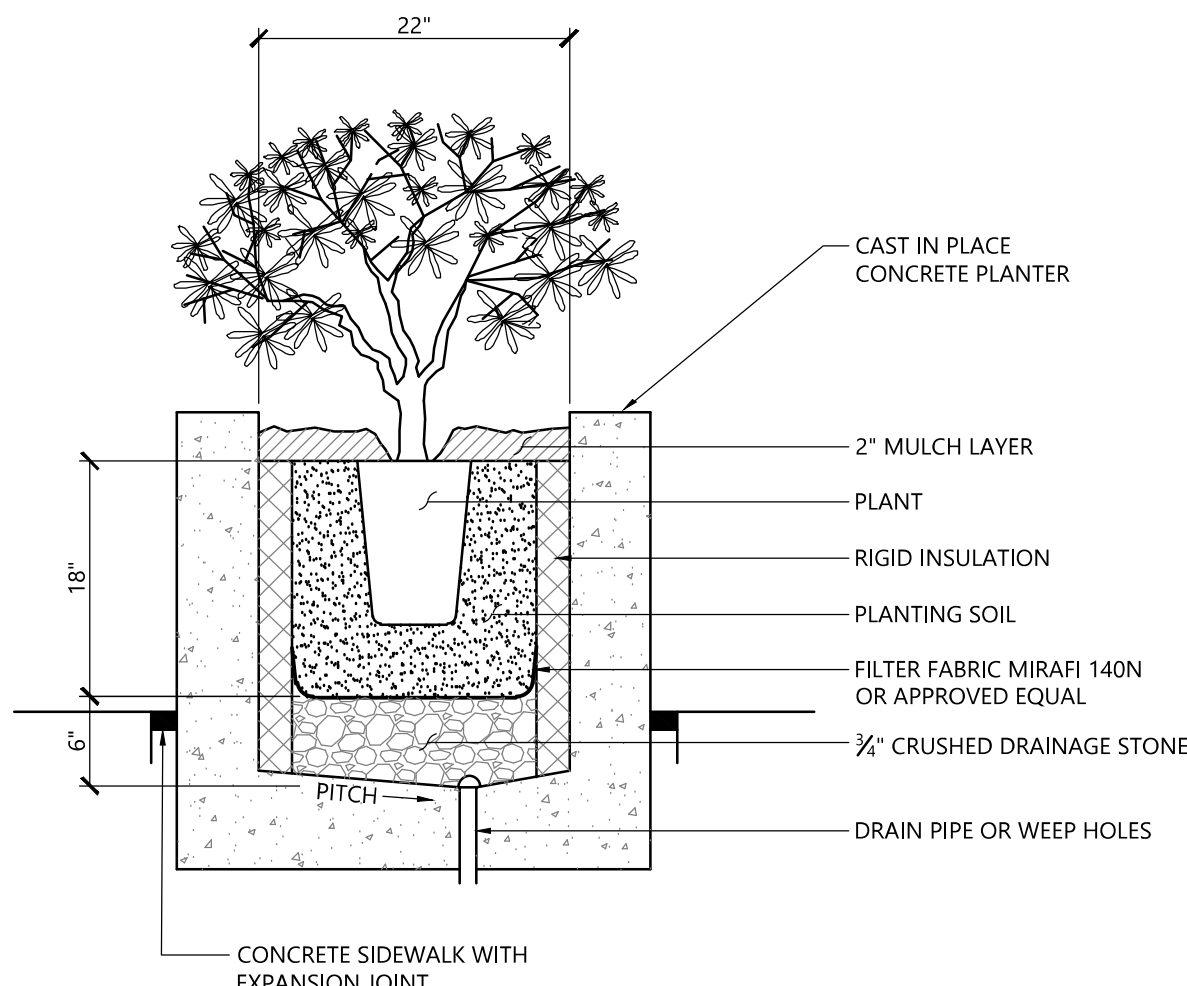
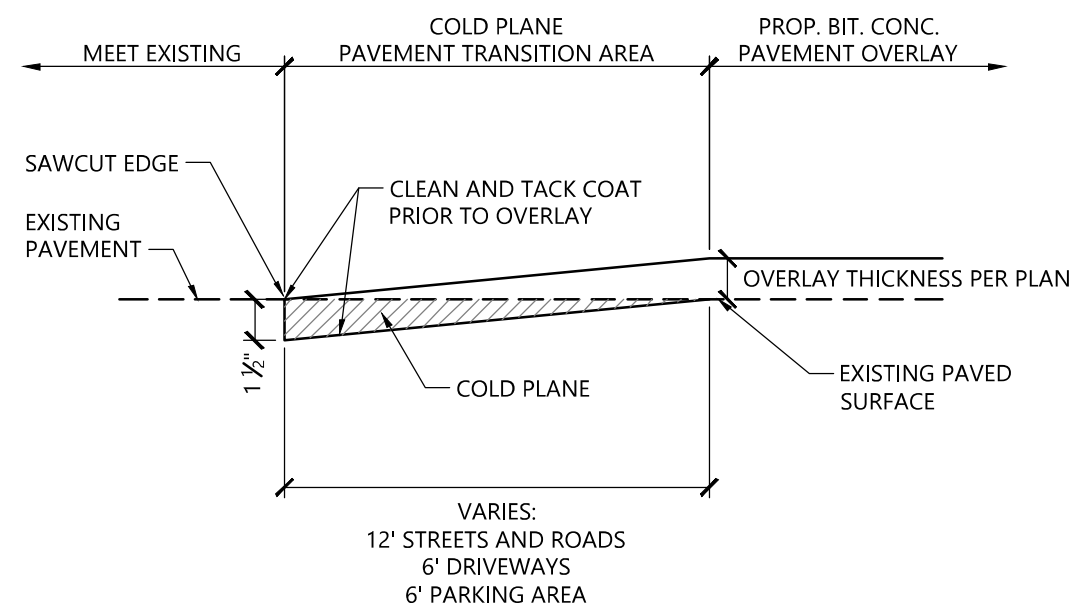
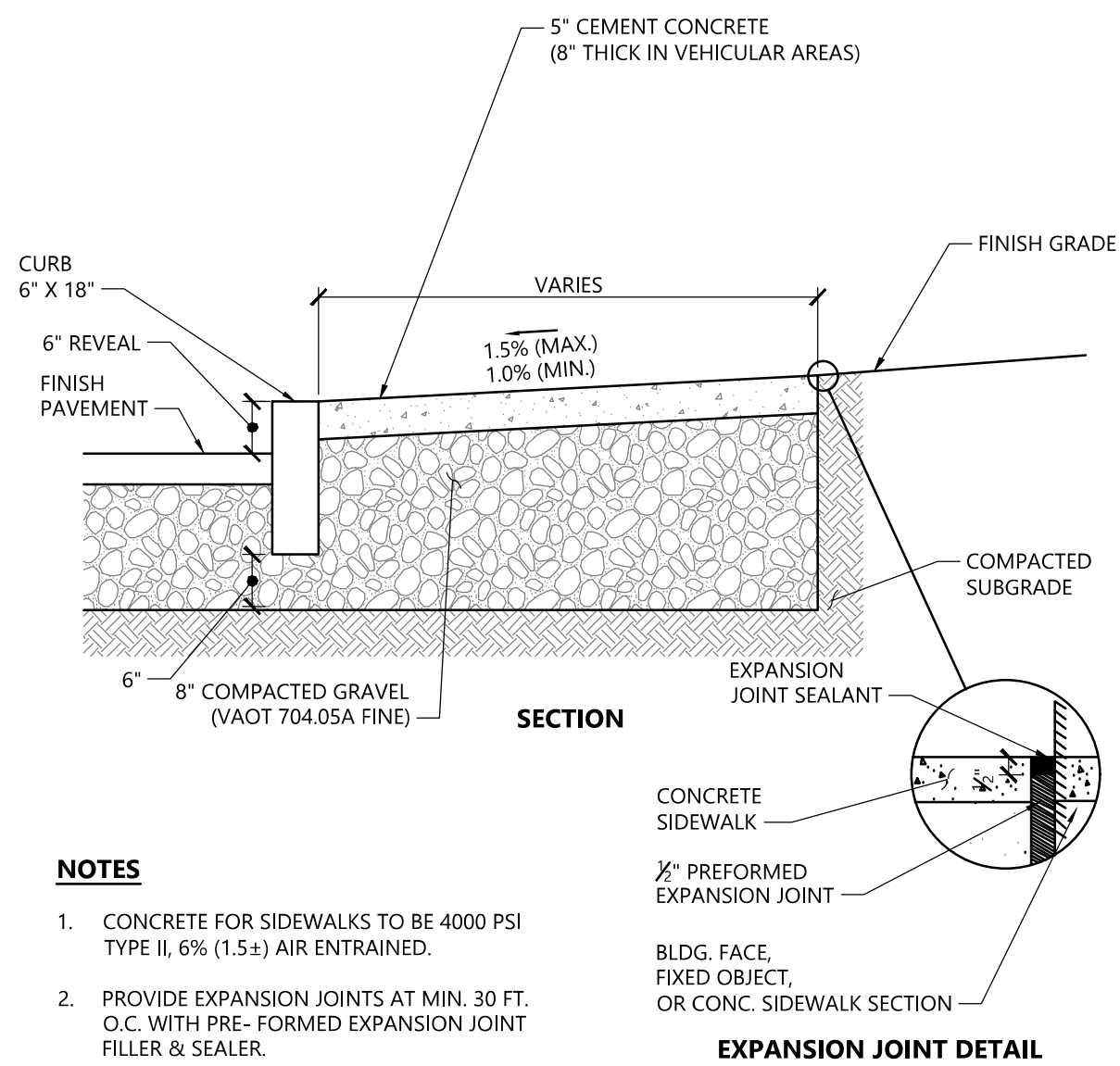
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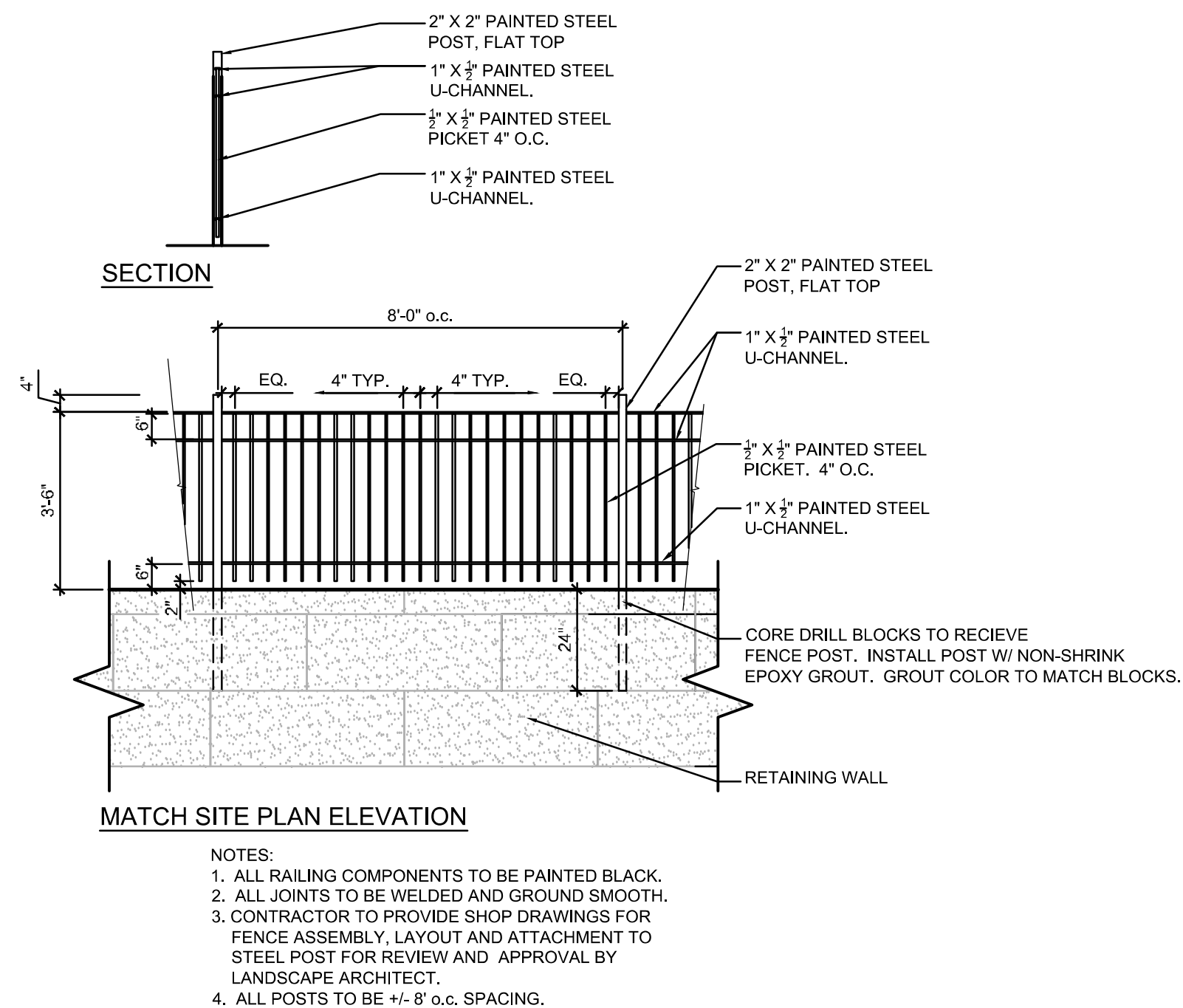


Cast-In-Place Concrete Curb (CC) & Sidewalk		1/16
N.T.S.	Source: VHB	LD_420

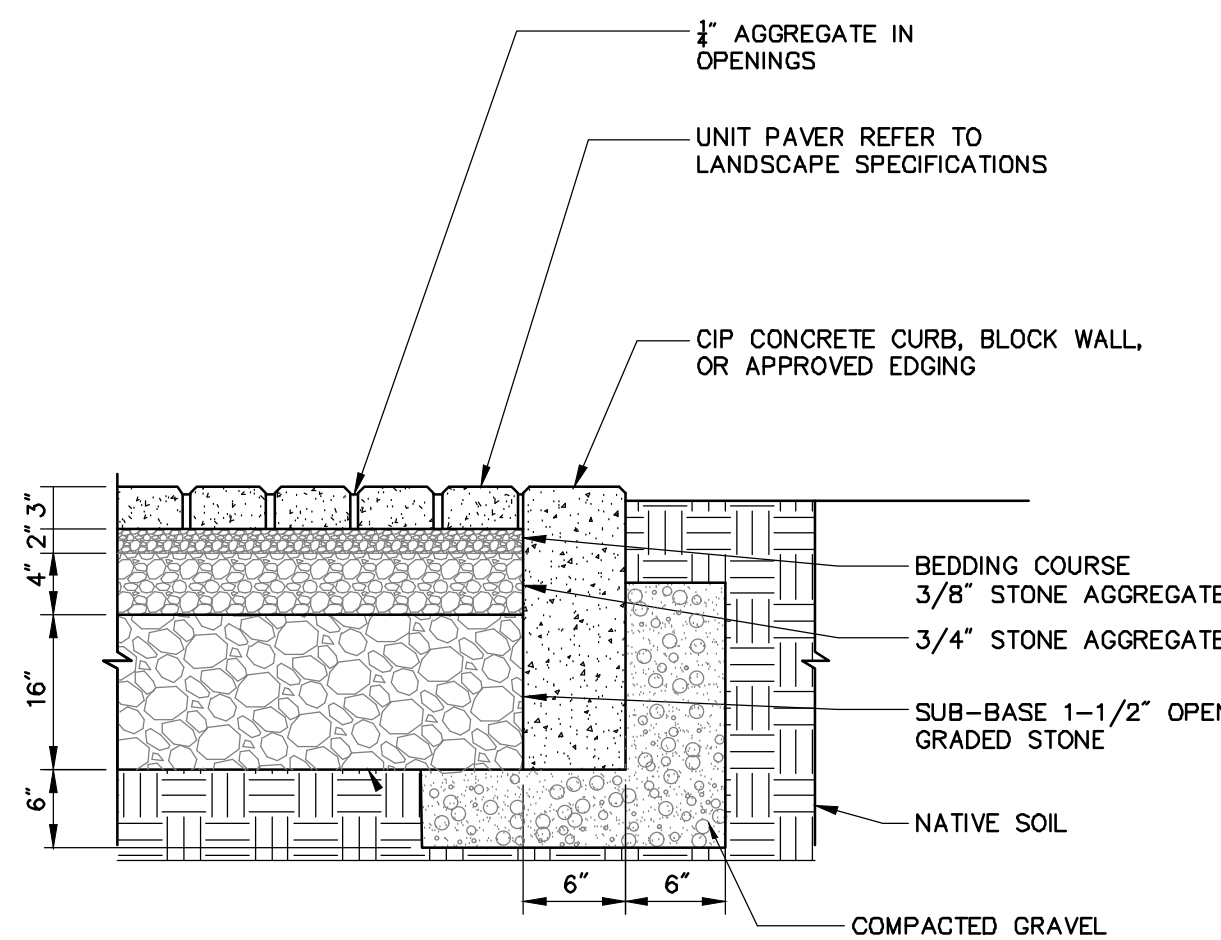
Pavement Overlay Transition Section 1/16
 N.T.S. Source: VHB LD_435

Planter Cross Section 1/16
 N.T.S. Source: VHB LD_608

Standard Duty Flexible Pavement		4/18
N.T.S.	Source: VHB	LD



Fall Protection Handrail		4/21
N.T.S.	Source: VHB	LD VT



Pervious Paver Typical Section

N.T.S.

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Site Details

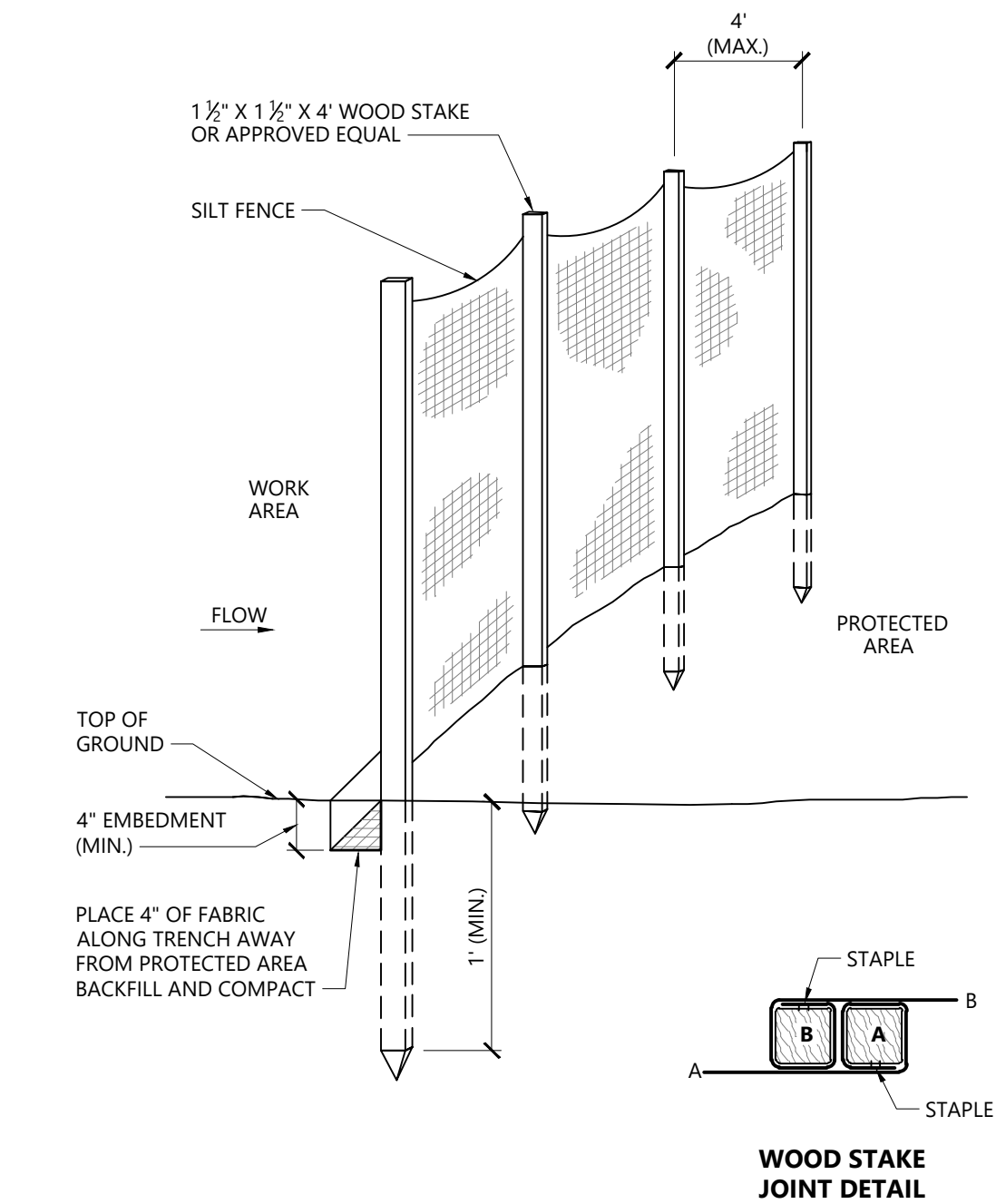
Site Details

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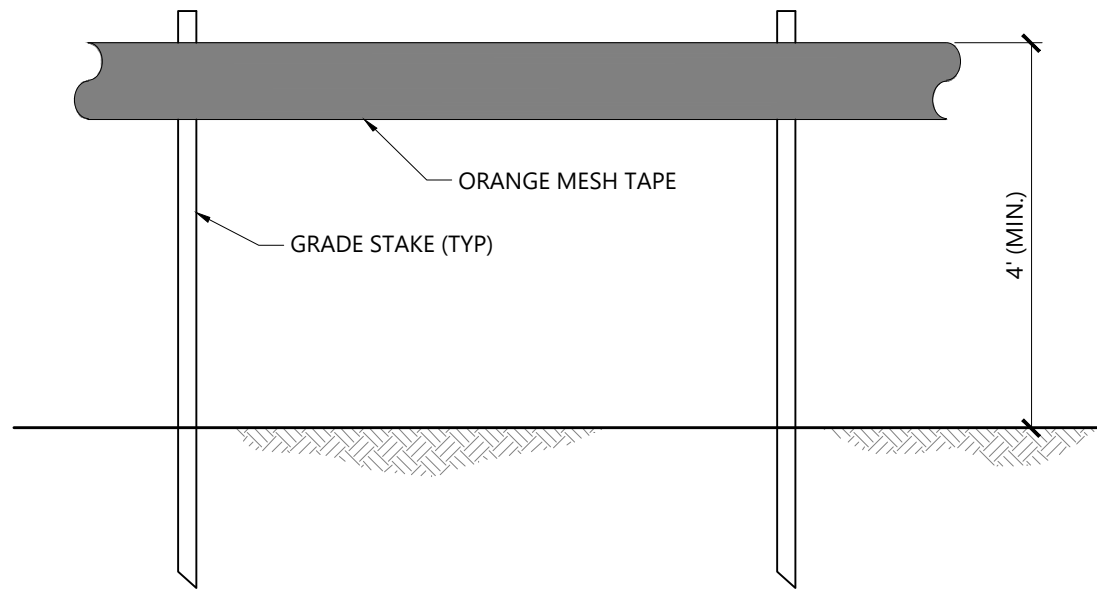
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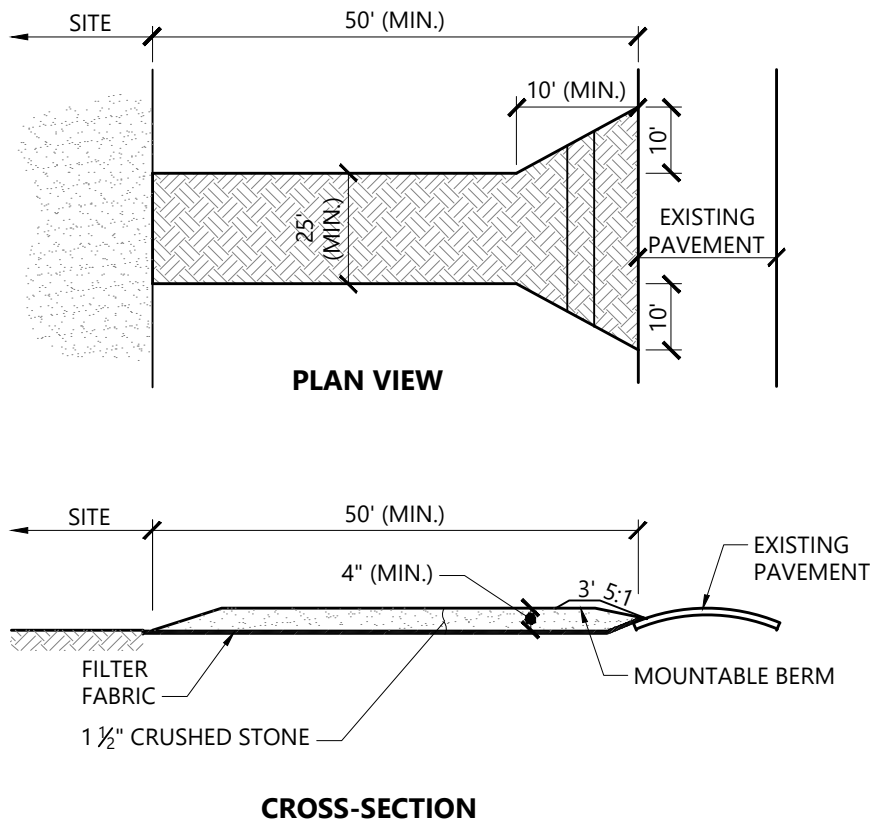
Silt Fence Barrier 1/16
N.T.S. Source: VHB LD_650



NOTES

1. BARRIER MESH TAPE SHALL BE INSTALLED ALONG THE PERIMETER OF THE PROJECT AREA TO DEMARCAT THE LIMIT OF DISTURBANCE. NO EARTHWORK OR STORAGE OF MATERIALS SHALL BE CONDUCTED BEYOND THIS LIMIT WITHOUT PRIOR APPROVAL FROM THE OSPC.
2. USE 3" ORANGE BARRIER MESH TAPE.
3. TAPE OR ROPE MAY BE FASTENED TO STAKES, TREES, OR OTHER APPROPRIATE FIXED OBJECTS.
4. PROJECT DEMARCATON SHALL NOT CROSS ACTIVE ACCESS ROUTES (E.G. ROADS).
5. PROJECT DEMARCATON SHALL REMAIN IN PLACE AND BE MAINTAINED/REPLACED AS NEEDED UNTIL FINAL STABILIZATION IN THE AREA HAS BEEN ACHIEVED.

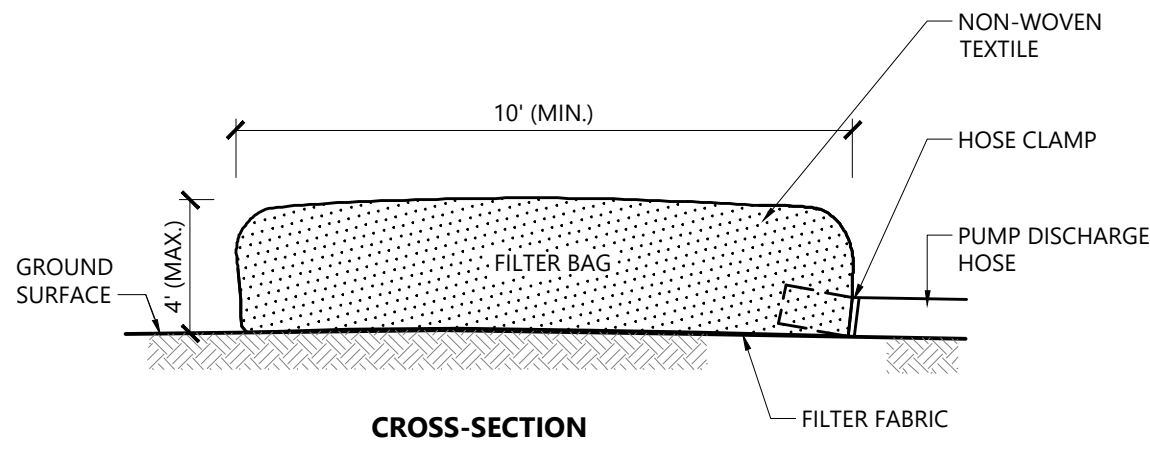
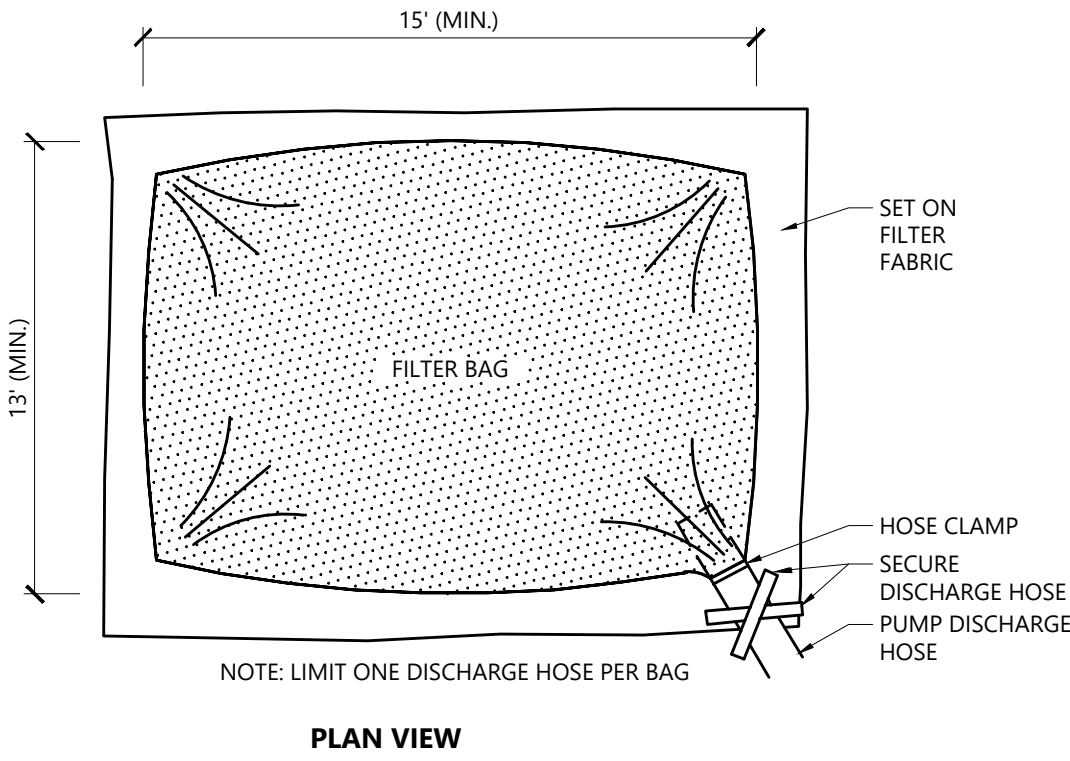
Barrier Mesh Tape or Rope 08/16
N.T.S. Source: VHB LD_VT



NOTES

1. EXIT WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM. BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
2. THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.
3. STABILIZED CONSTRUCTION EXIT SHALL BE REMOVED PRIOR TO FINAL FINISH MATERIALS BEING INSTALLED.

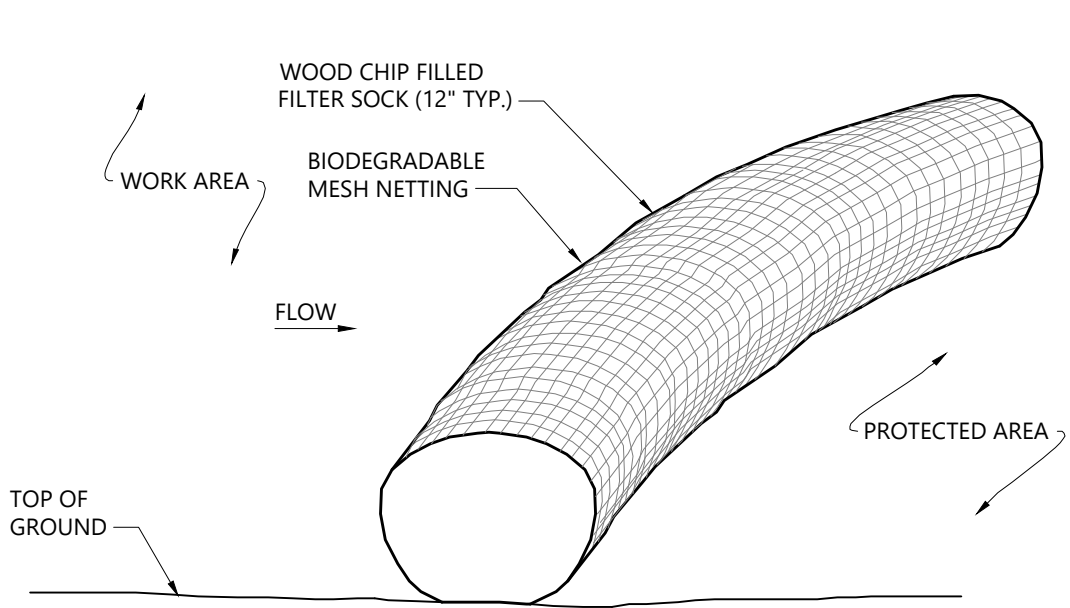
Stabilized Construction Exit 1/16
N.T.S. Source: VHB LD_682



NOTES

1. BAG TO BE USED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

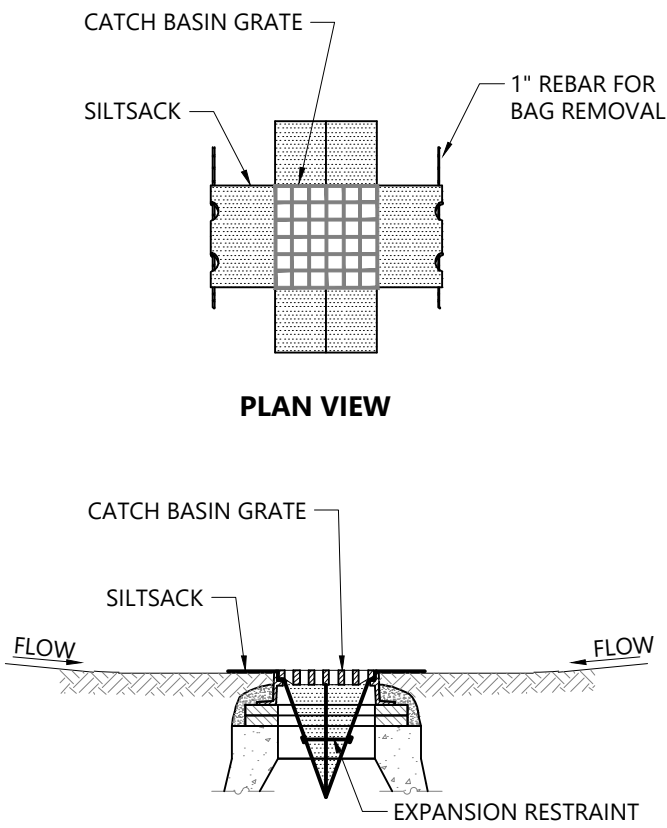
Dewatering Filter Bag 1/16
N.T.S. Source: VHB LD_691



NOTES

1. FILTER SOCK SHALL BE FILTREXX SILTSOXX, OR APPROVED EQUAL.
2. FILTER SOCK SHALL BE ANCHORED WITH GRAVEL BAGS.
3. FILTER SOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.
4. IF NON BIODEGRADABLE NETTING IS USED THE NETTING SHALL BE COLLECTED AND DISPOSED OF OFFSITE.

Siltsock - Erosion Control Barrier 1/16
N.T.S. Source: VHB LD_658



NOTES

1. INSTALL SILTSACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND STRAW BALES HAVE BEEN REMOVED.
2. GRATE TO BE PLACED OVER SILTSACK.
3. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED

Siltsock Sediment Trap 1/16
N.T.S. Source: VHB LD_674

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Erosion Prevention and
Sediment Control Details

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TABLE OF DIMENSIONS											
BENDS	B	C	D	E	F	BENDS	B	C	D	E	F
6" 11 ¼"	8"	15"	12"	24"	12"	6° 45'	8"	30"	12"	24"	14"
6" 22 ½"	"	19"	"	"	13"	6° 90'	"	30"	"	"	27"
8" 11 ¼"	"	20"	"	"	12"	8° 45'	"	30"	"	"	24"
8" 22 ½"	"	22"	"	"	17"	8° 90'	"	38"	"	"	36"
12" 11 ¼"	"	30"	"	"	15"	12° 45'	"	40"	"	"	40"
12" 22 ½"	"	35"	"	"	25"	12° 90'	"	60"	"	"	52"

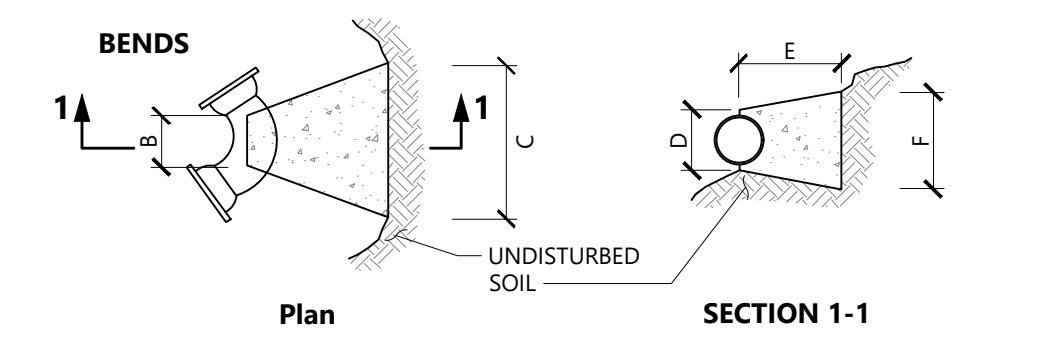
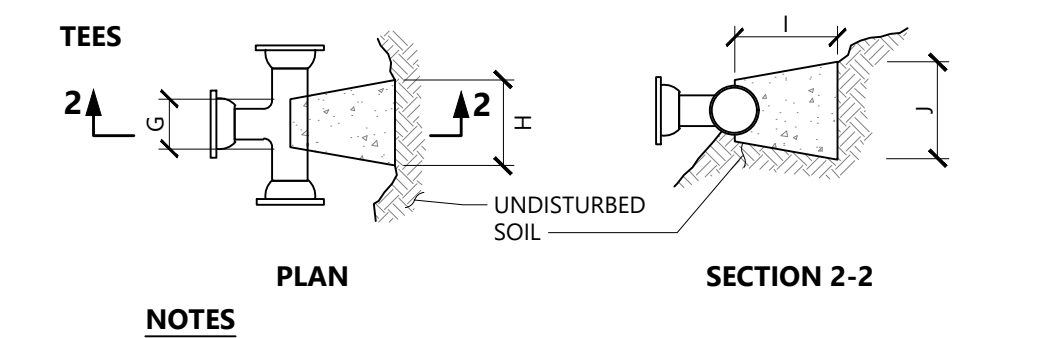


TABLE OF DIMENSIONS									
TEES	G	H	I	J	TEES	G	H	I	J
6"X6"X6"	12"	24"	24"	18"	12"X12"X6"	12"	24"	24"	18"
8"X8"X6"	"	"	"	"	12"X12"X8"	"	"	"	24"
8"X8"X8"	"	"	"	24"	12"X12"X12"	"	36"	"	36"

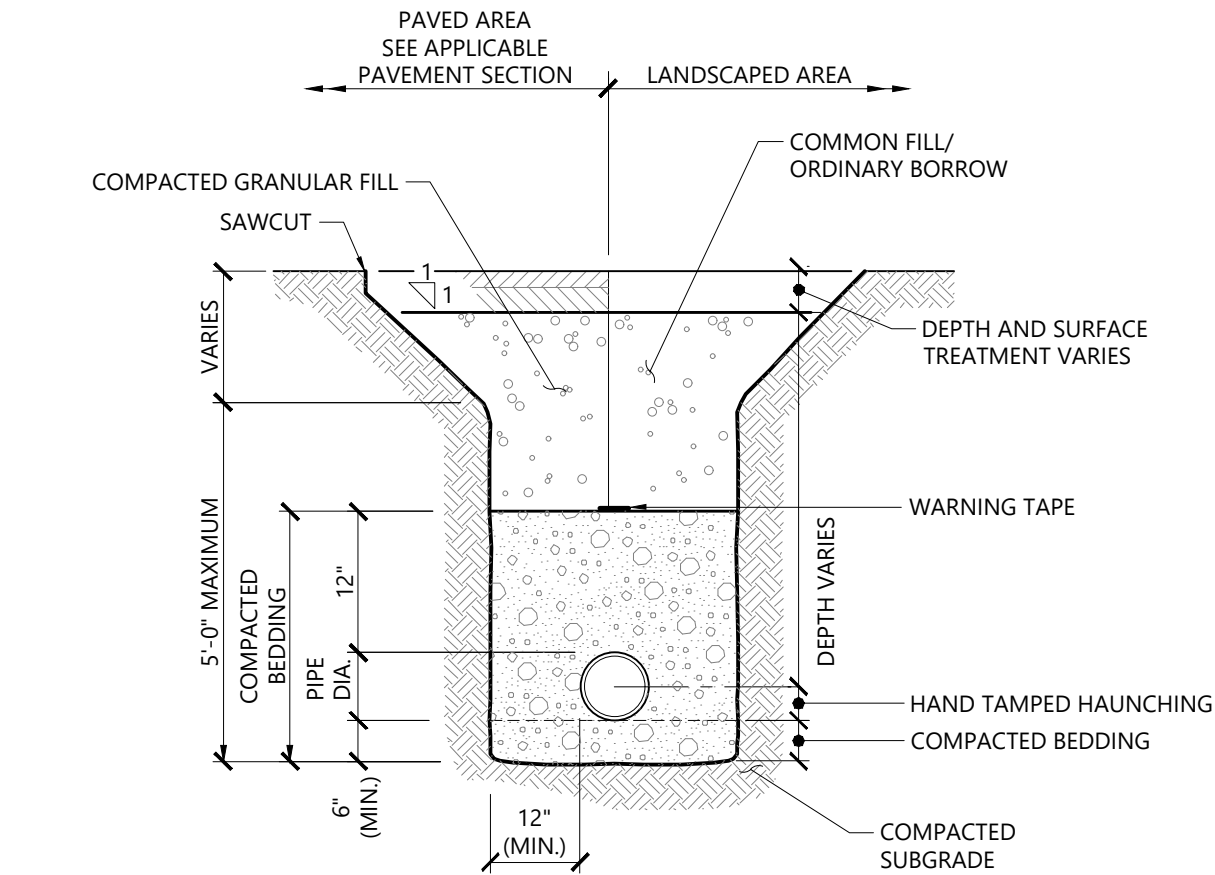


NOTES

- PROVIDE BLOCKS FOR TAPPING SLEEVES, DEAD ENDS, GATE VALVES, AND VERTICAL BENDS (SAME SIZE AS REQUIRED FOR TEES); PROVIDE ANCHOR RODS AT VERTICAL BENDS AND GATE VALVES.
- CONCRETE SHALL NOT BE PLACED AGAINST PIPE BEYOND FITTING.
- CONCRETE SHALL BE 3,000 PSI-TYPE I.

Concrete Thrust Block

N.T.S. Source: VHB 1/16 LD_260

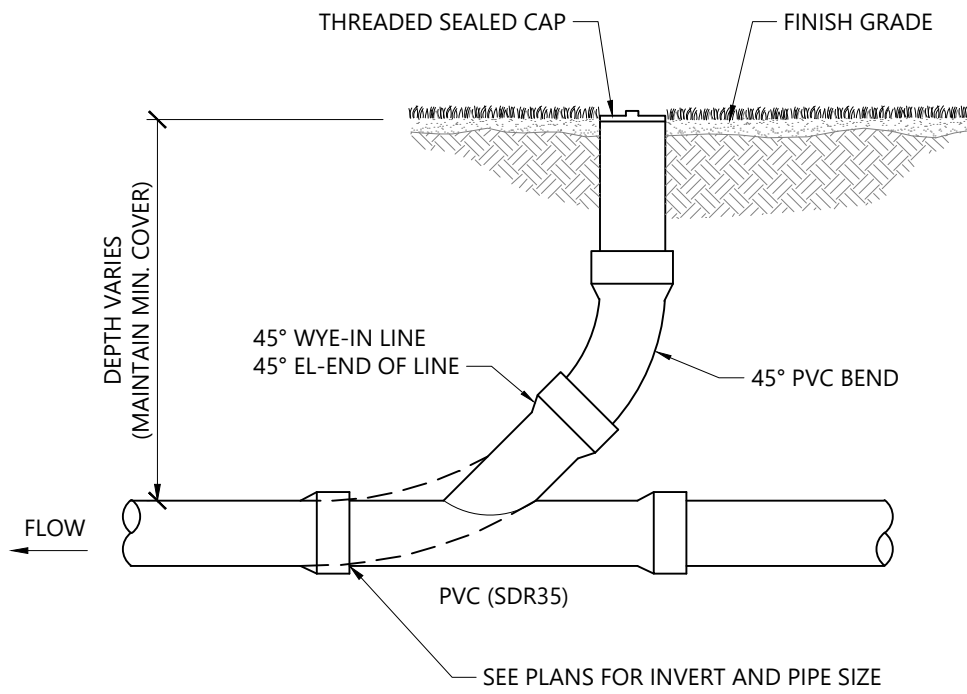


NOTES

- WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
- USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.

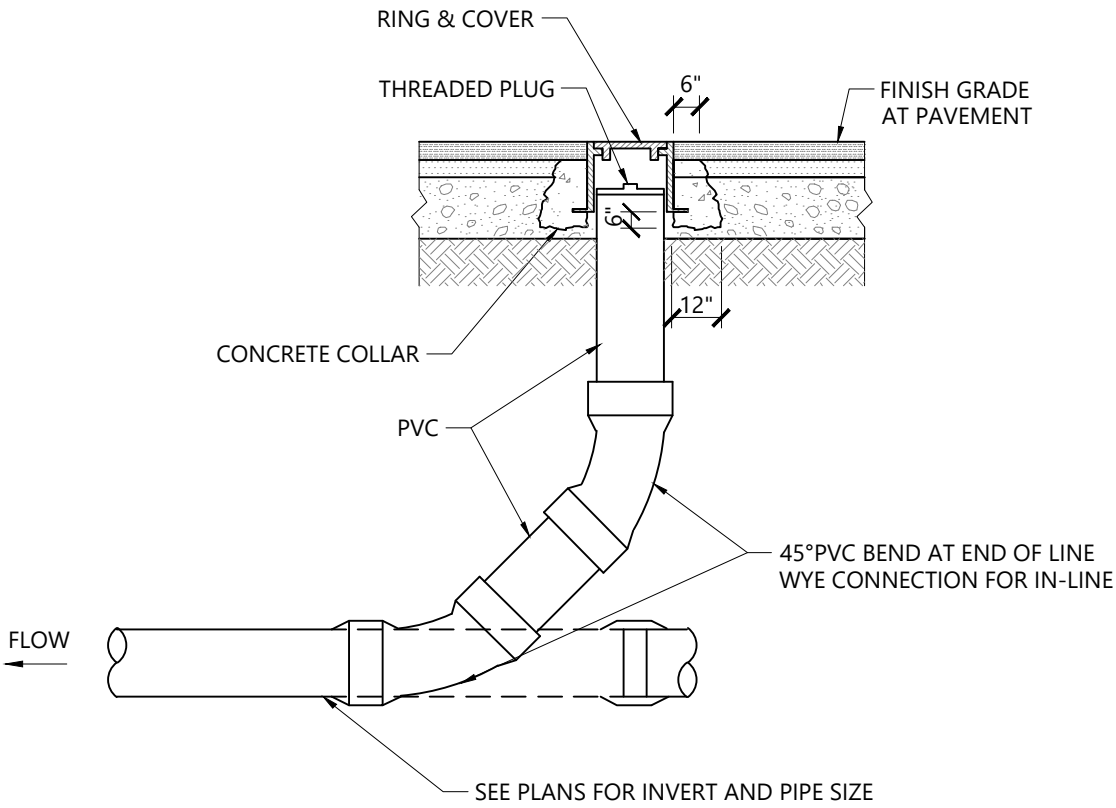
Utility Trench

N.T.S. Source: VHB 1/16 LD_300



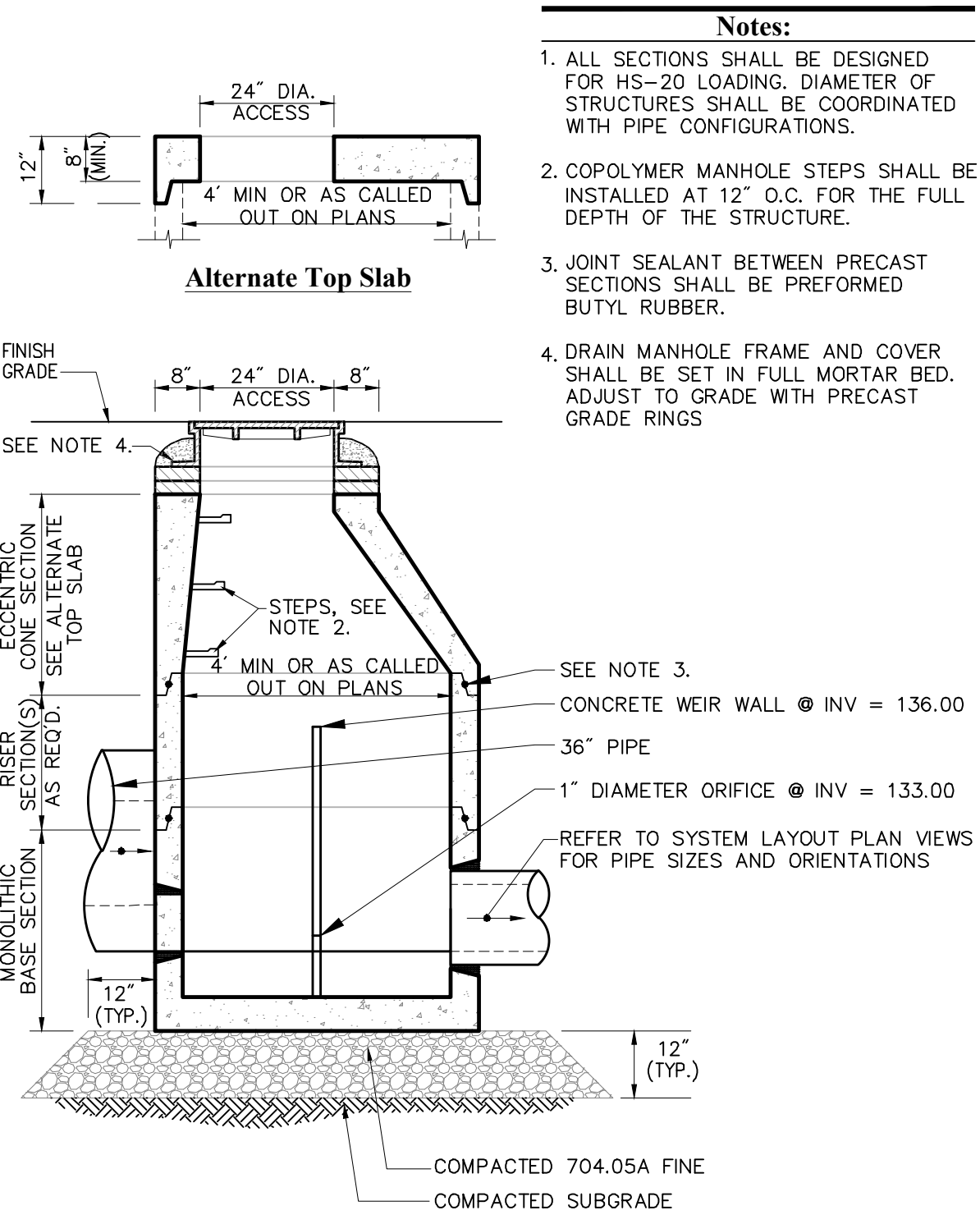
Cleanout - Landscape Area

N.T.S. Source: VHB 1/16 LD_302



Cleanout - Paved Area

N.T.S. Source: VHB 1/16 LD_303



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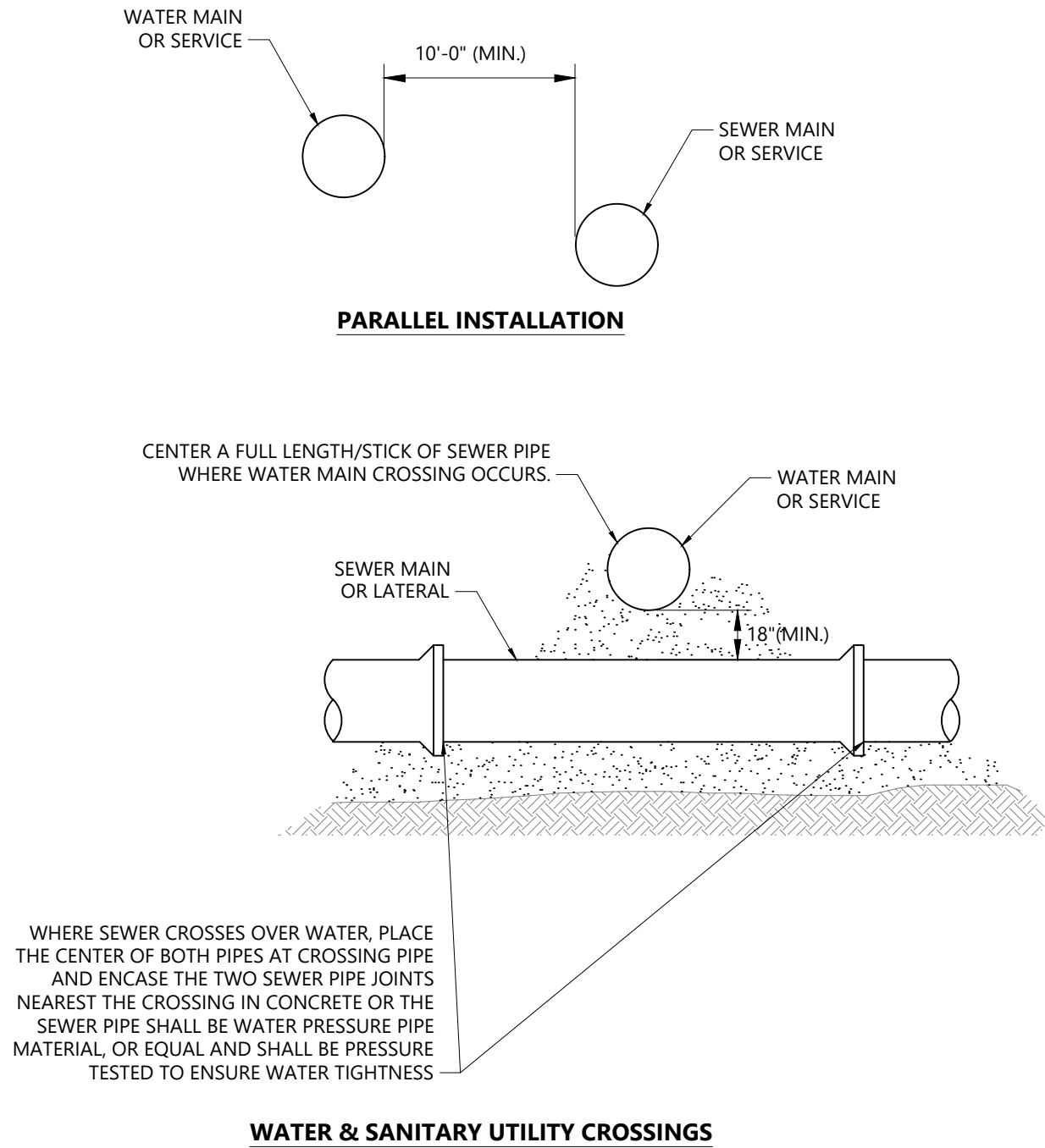
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Utility Details

Drawing Number

C6.02

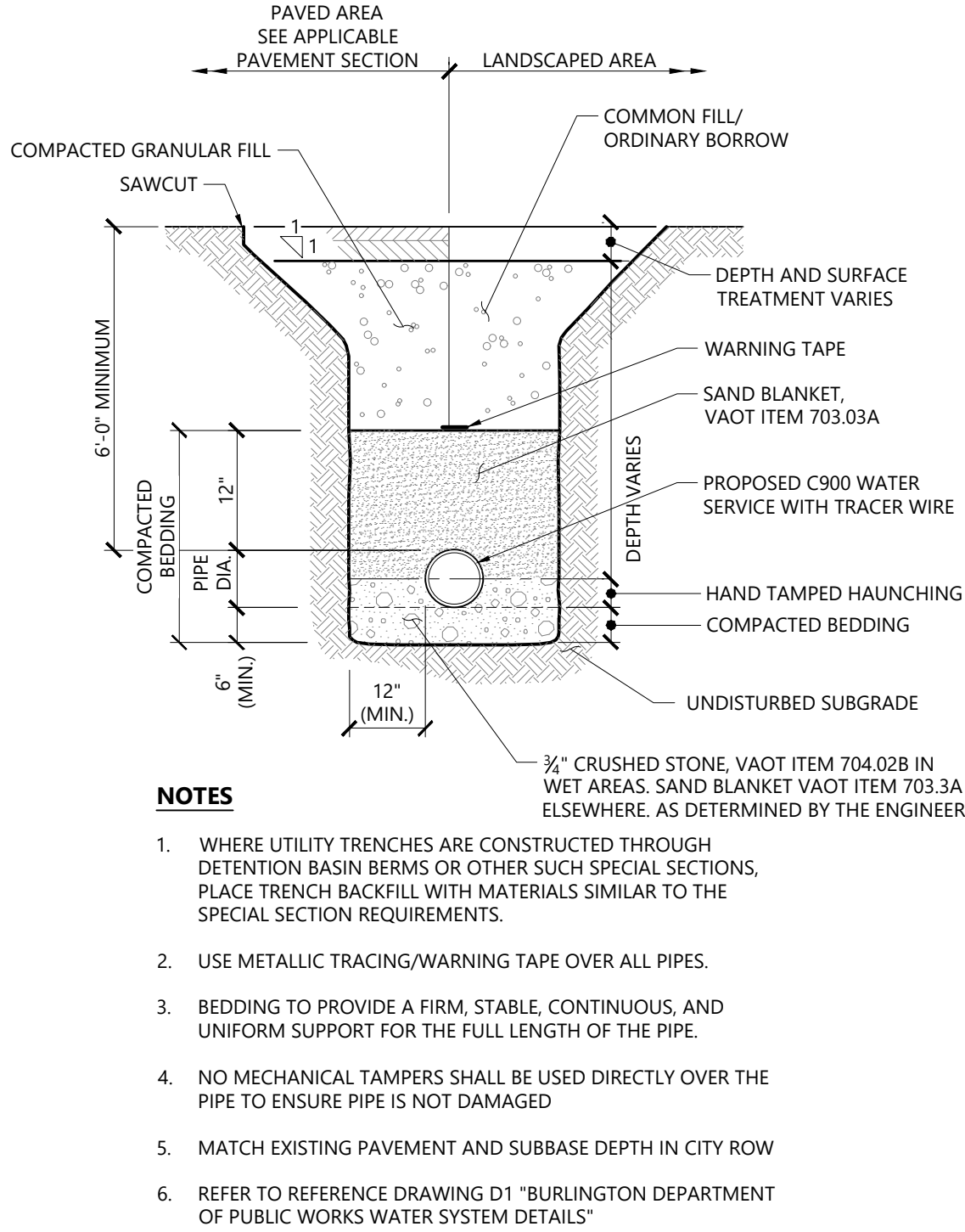
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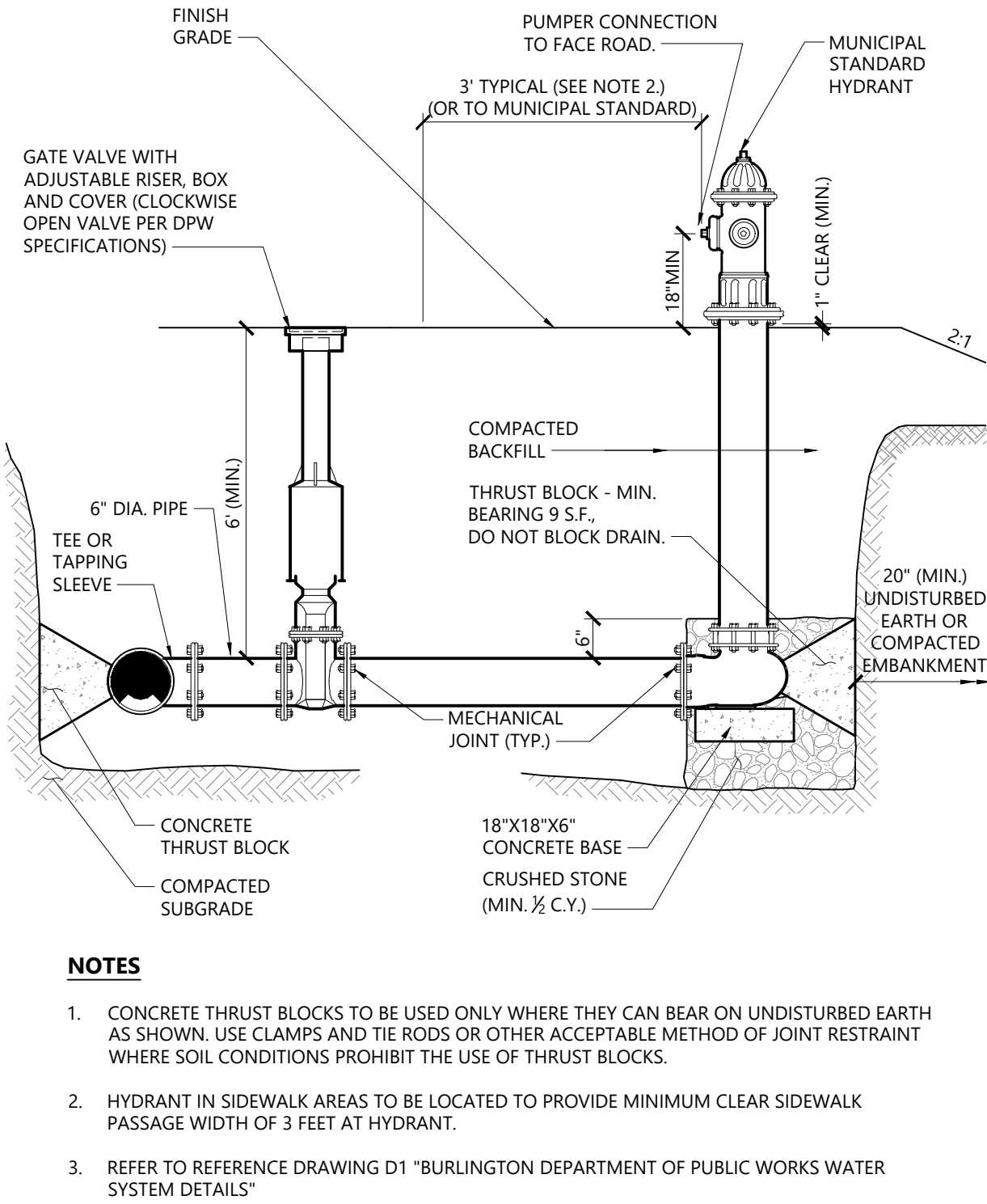
Water/Sewer Separation1/16

N.T.S. Source: VHB LD_



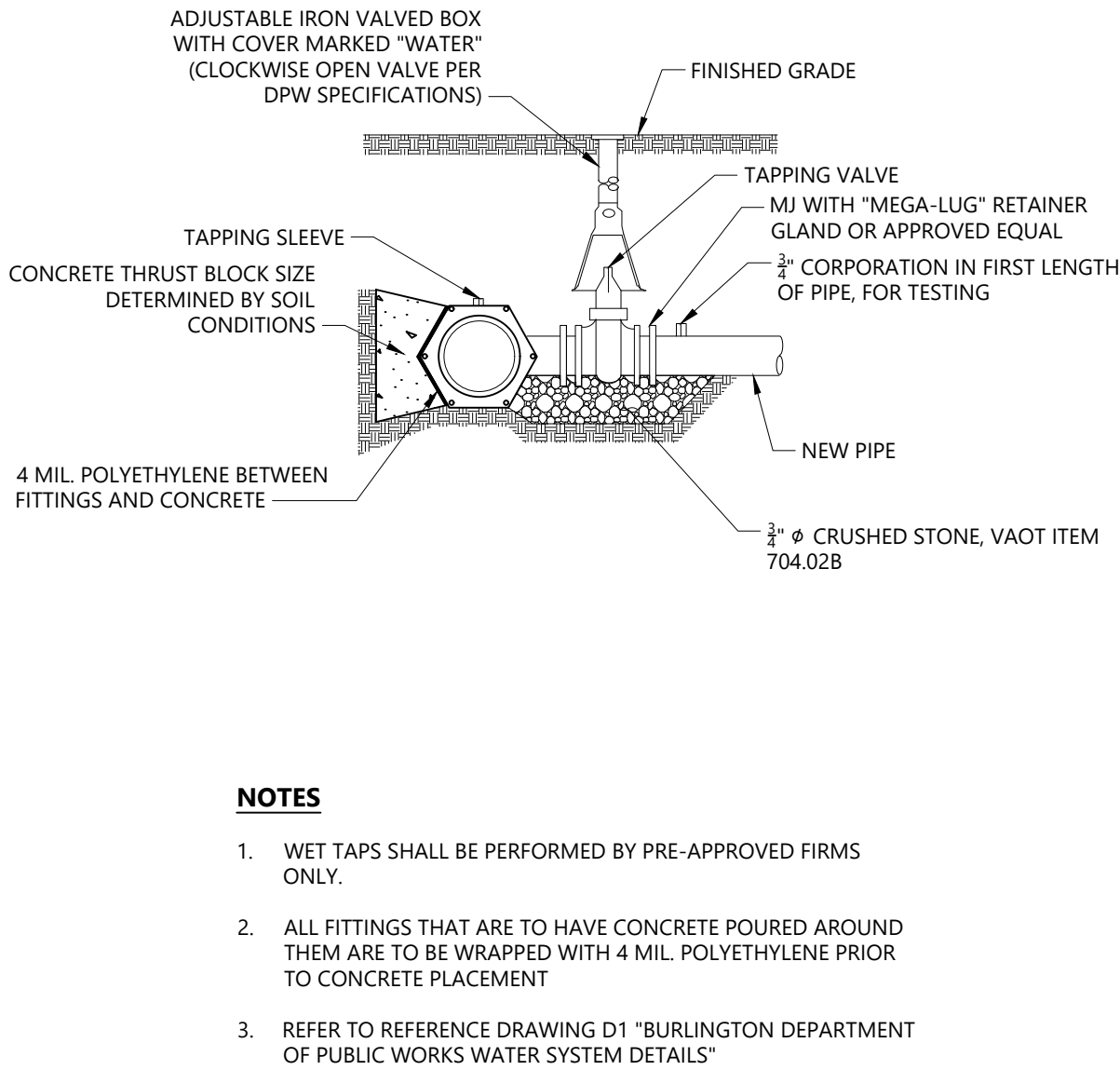
Waterline Trench1/16

N.T.S. Source: VHB LD_



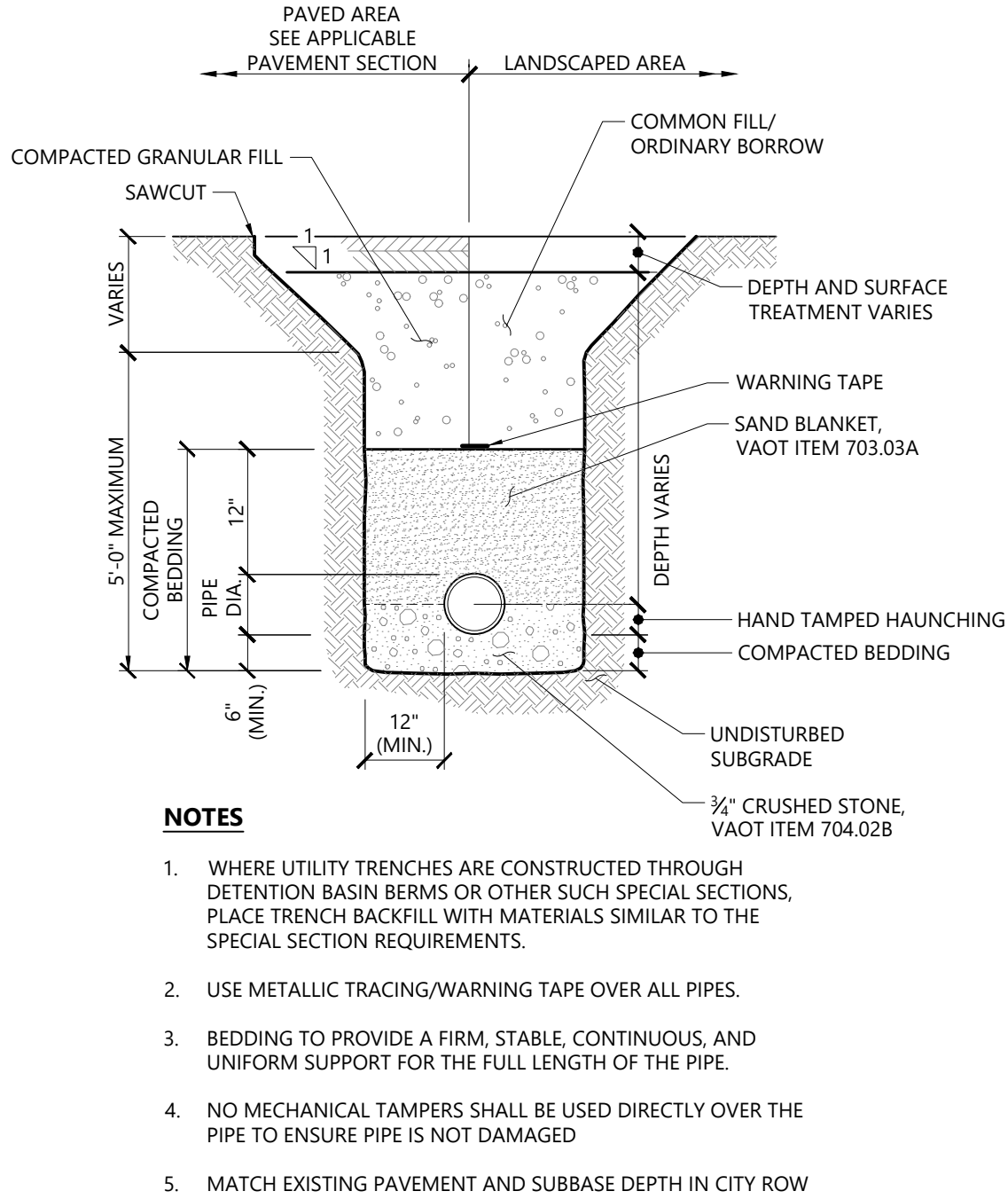
Hydrant Assembly Construction1/16

N.T.S. Source: VHB LD_250



Typical Tapping Sleeve and Valve Detail2/18

N.T.S. Source: VHB LD_



Sewerline Trench1/16

N.T.S. Source: VHB LD_

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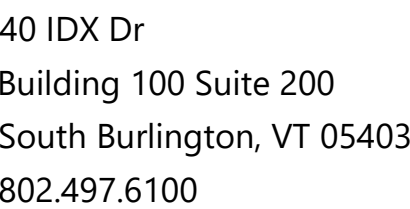
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Utility Details

Drawing Number

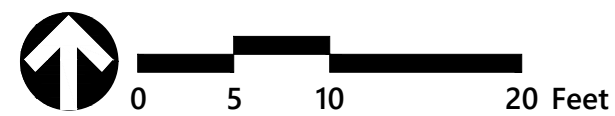
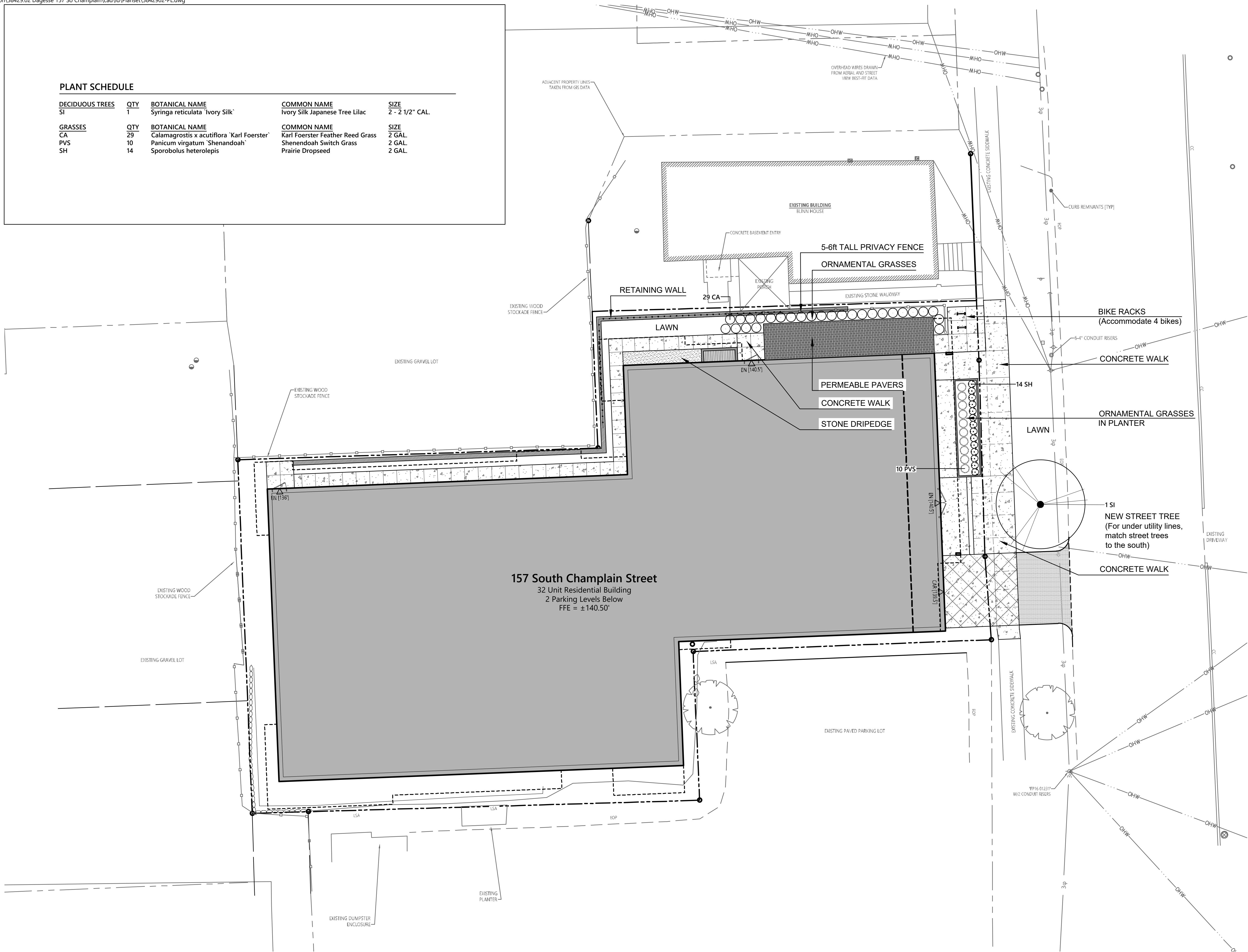
C6.03

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<u>DECIDUOUS TREES</u>		<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>	<u>SIZE</u>
SI	1	Syringa reticulata 'Ivory Silk'	Ivory Silk Japanese Tree Lilac	2 - 2 1/2" CAL.
<u>GRASSES</u>		<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>	<u>SIZE</u>
CA	29	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	2 GAL.
PVS	10	Panicum virgatum 'Shenandoah'	Shenandoah Switch Grass	2 GAL.
SH	14	Sporobolus heterolepis	Prairie Dropseed	2 GAL.



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Drawing Title

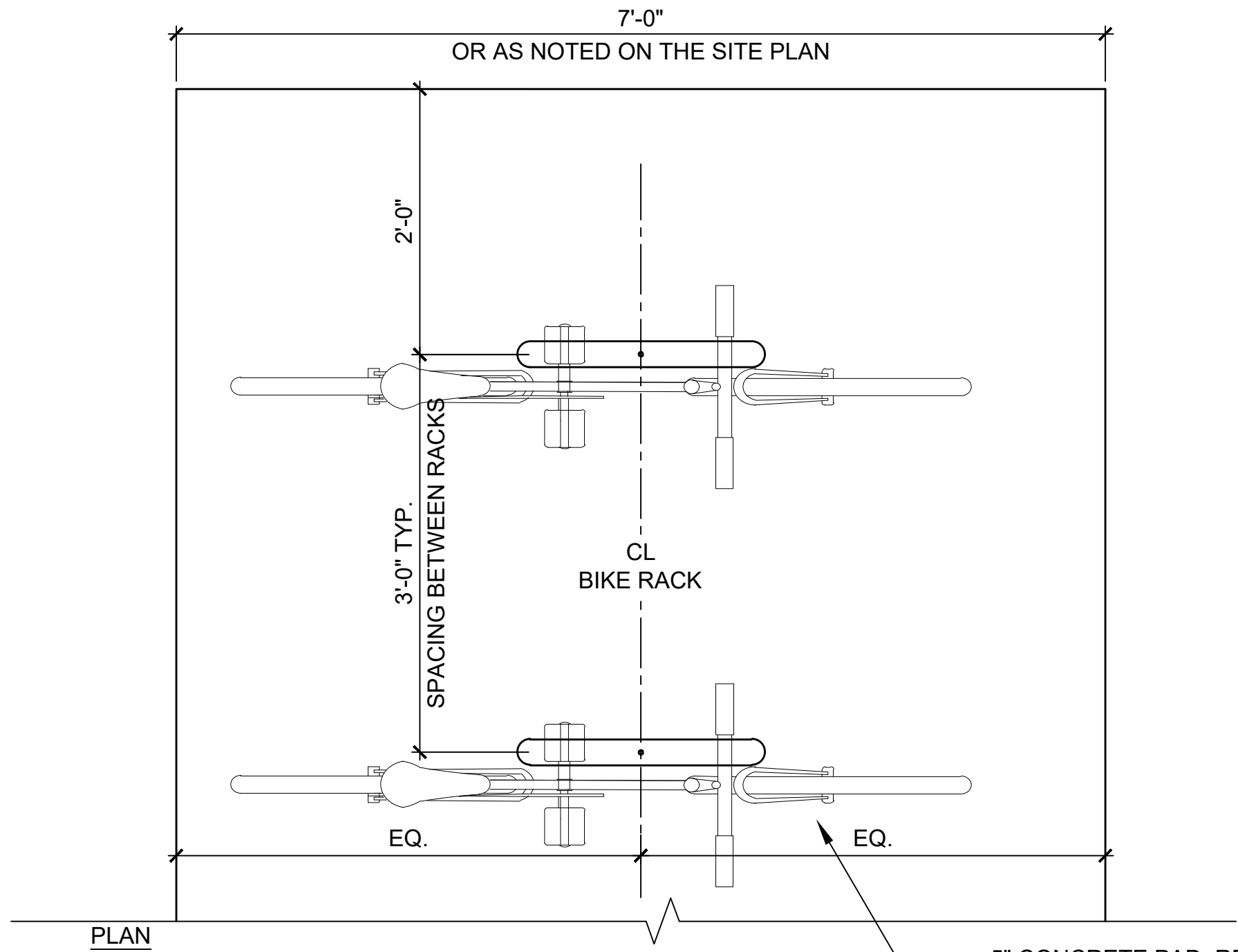
Landscape Plan

Drawing Number

L1.00

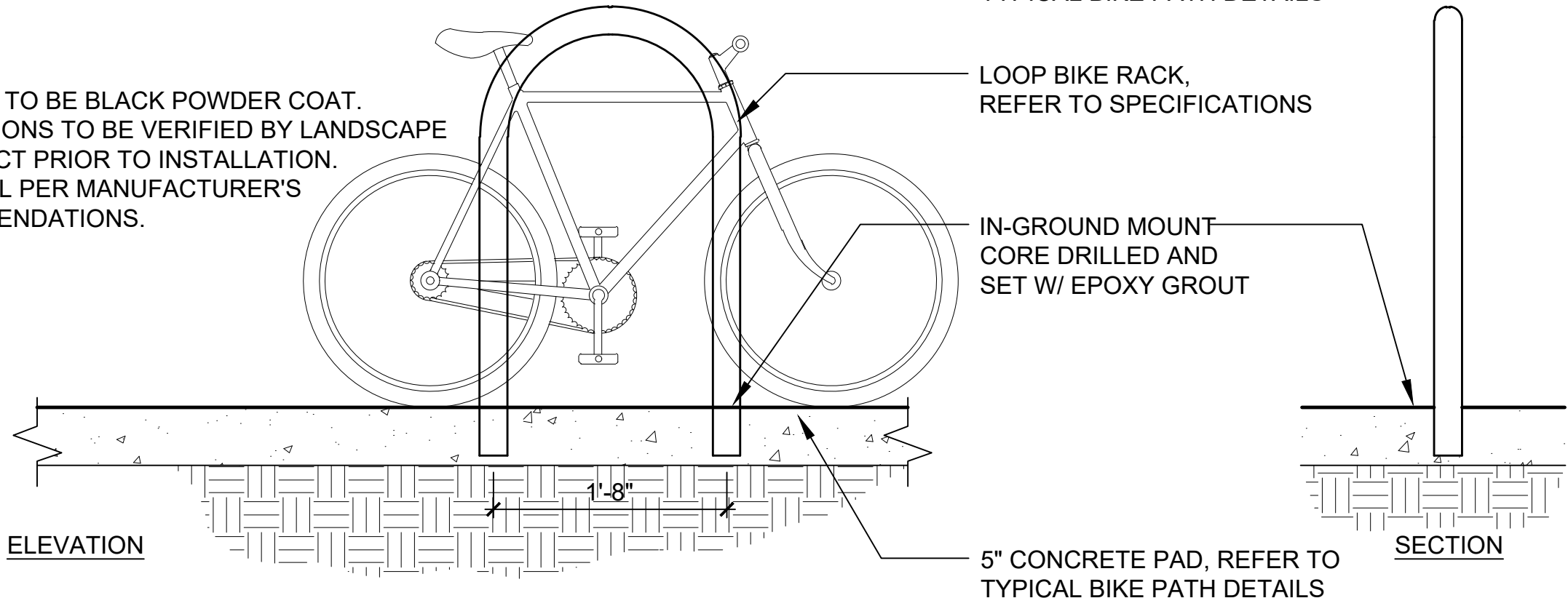
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NOTES:

1. COLOR TO BE BLACK POWDER COAT.
2. LOCATIONS TO BE VERIFIED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
3. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

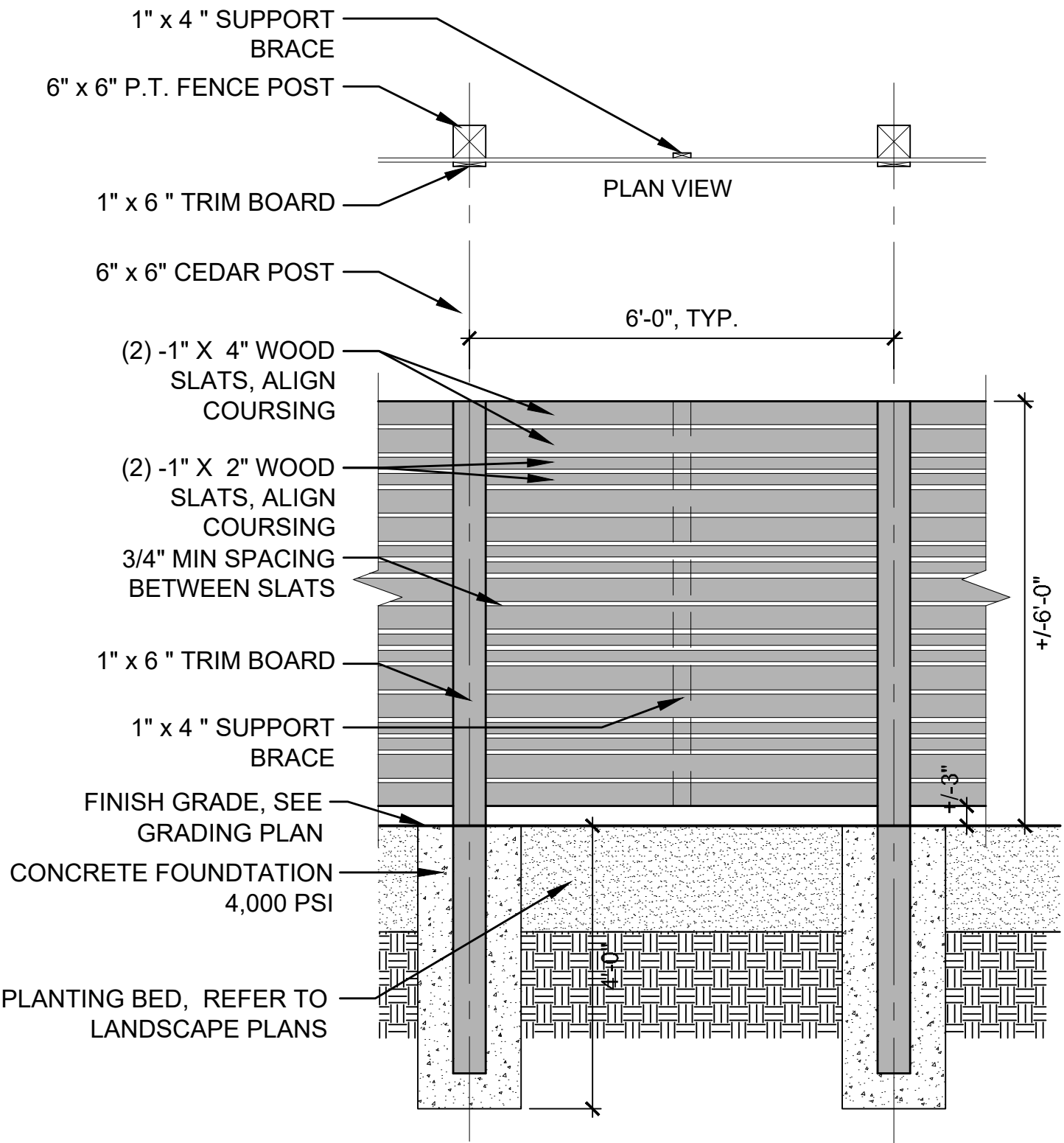


BIKE RACK

SCALE 1" = 1'

NOTES:

1. ALL WOOD FENCE COMPONENTS TO BE WESTERN RED CEDAR
2. WOOD FENCE POSTS TO BE P.T. LUMBER RATED FOR DIRECT GROUND CONTACT
2. ALL ASSOCIATED HARDWARE SHOULD BE SS
4. WOOD FENCE FINISH TO MATCH THE BUILDING CEDAR
6. CONTRACTOR TO PROVIDE SHOP DRAWINGS SHOWING LAYOUT AND INCLUDING ALL PROPOSED MATERIALS AND HARDWARE.



PRIVACY FENCE

SCALE 1/2" = 1'-0"



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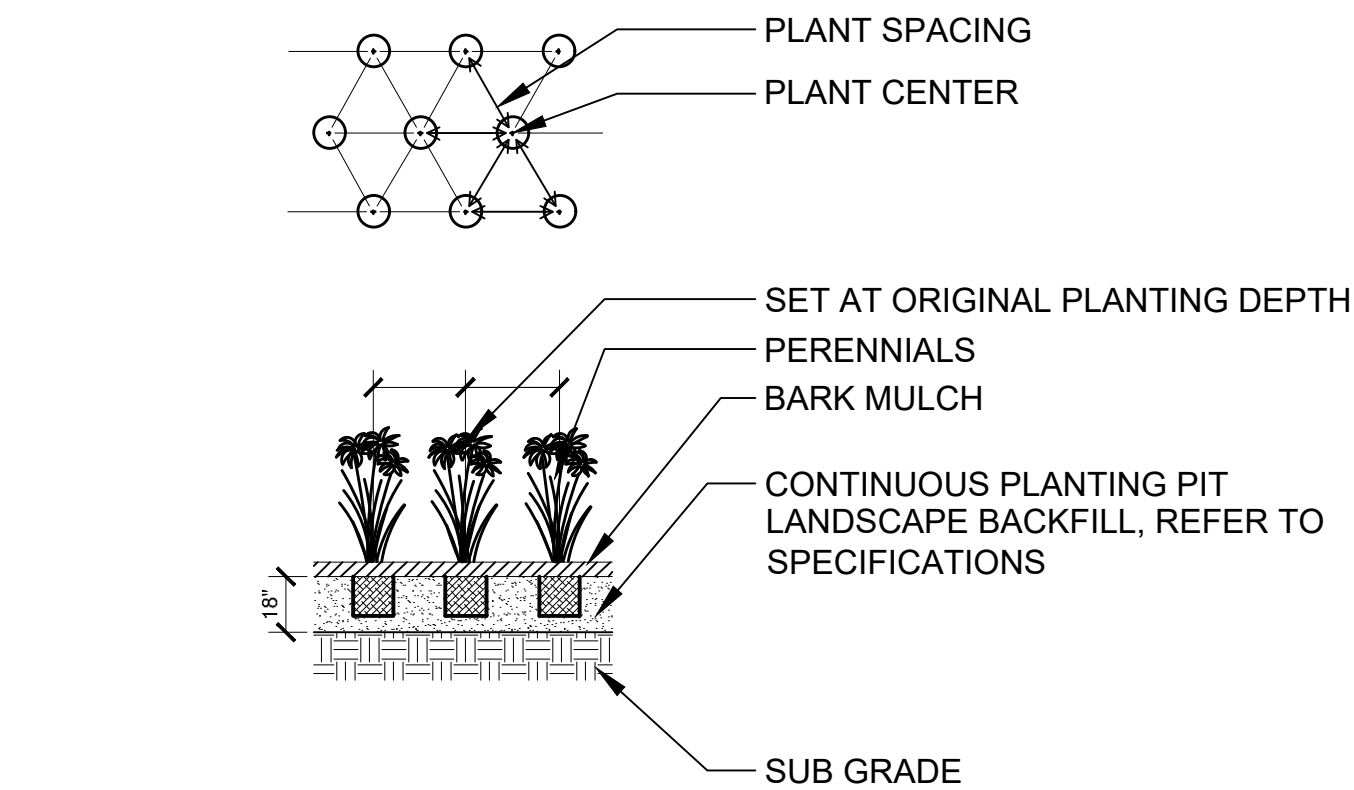
Drawing Title
Landscape Details

Drawing Number

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PERENNIAL PLANTING
N.T.S.

- NOTES:
1. REFER TO PLANTING PLAN FOR SPACING AND QUANTITIES.
 2. ALL PLANTING BEDS ARE TO BE CONTINUOUS, COMPLETELY DUG OUT AND BACKFILLED WITH THE PROPER PLANTING BED BACKFILL MATERIAL, REFER TO SOIL PREPARATION SPECIFICATION.

SURROUNDING SOIL SHOULD NOT EXCEED 80% COMPACTION, DRAINAGE WILL BE REQUIRED IF COMPACTED SOILS ARE PRESENT

NYLON STRAP WITH 3/4" GROMMETS, REFER TO SPECIFICATIONS INCIDENTAL TO DECIDUOUS TREES

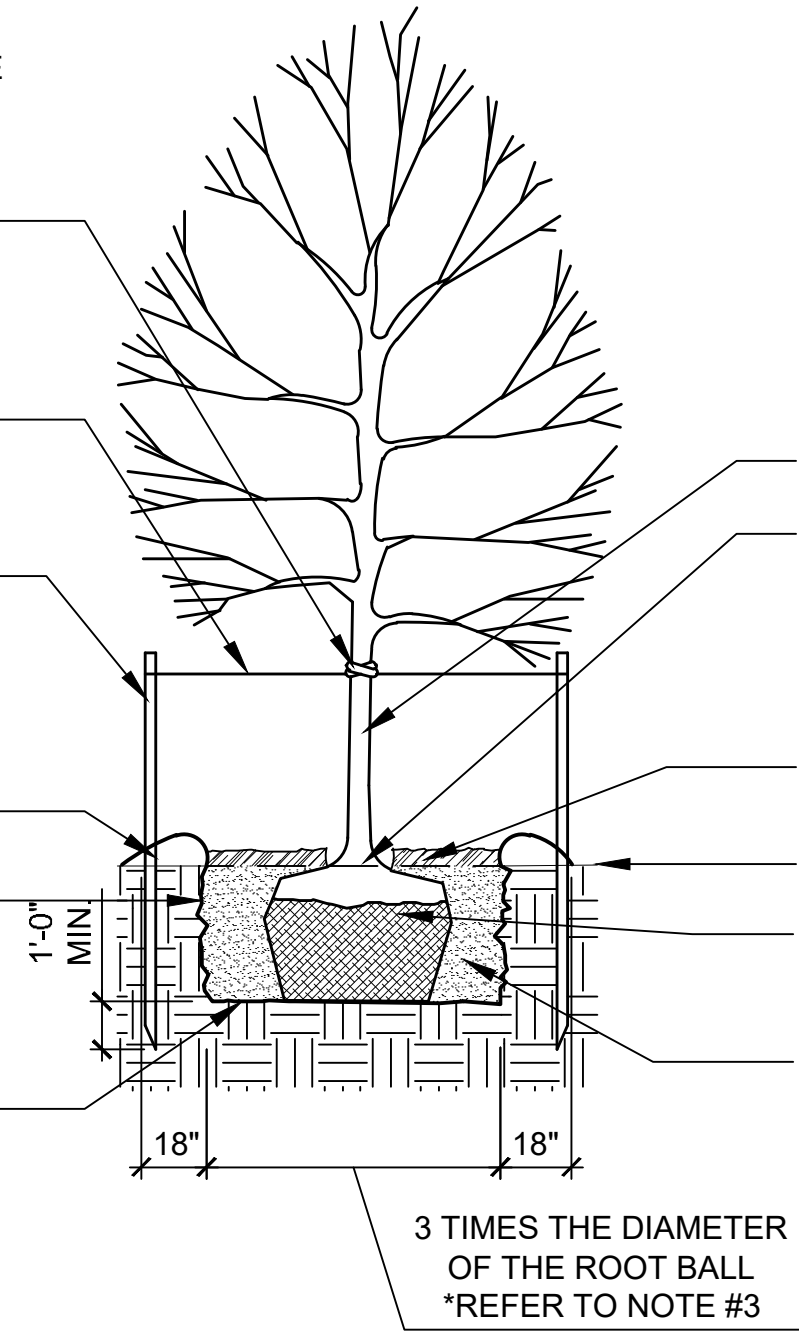
FASTEN WIRE BELOW POINT OF MAJOR BRANCHING OR TO MAJOR OUTSIDE TRUNK.

2 1/2" HARDWOOD STAKES. ALIGN STAKES PARALLEL W/ ROAD/ WALKS OR PARALLEL W/ DIRECTION OF PREVAILING WIND, REFER TO TREE STAKING DETAIL INCIDENTAL TO DECIDUOUS TREES

TEMPORARY WATERING BASIN MADE FROM SOIL

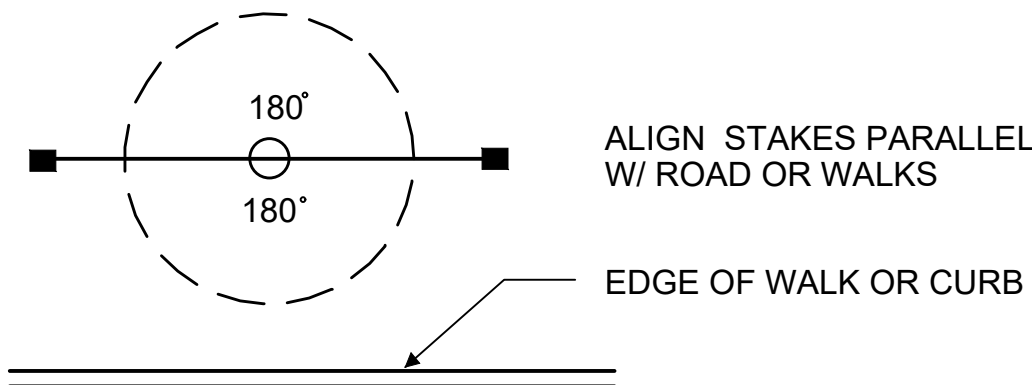
BREAK APART EDGE OF EXCAVATION W/ SHOVEL AND BLEND PLANT MIX W/ EXISTING SOIL TO PROVIDE TRANSITION TO UNDISTURBED GRADE

UNDISTURBED GRADE EXCAVATE ONLY TO SPECIFIED PLANTING DEPTH TO ENSURE STABLE BASE

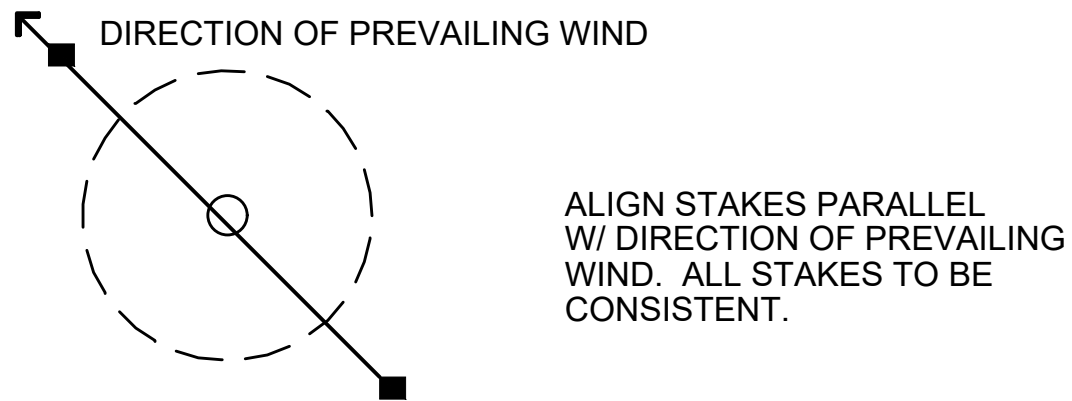


- NOTES:
1. EXAMINE ENTIRE TREE AND REMOVE ALL NURSERY TAGS, ROPE, STRING, OR SURVEYORS TAPE TO PREVENT FUTURE GIRDLING.
 2. ALL TREE PLANTING BEDS ARE TO BE CONTINUOUS, COMPLETELY DUG OUT AND BACKFILLED WITH THE PROPER PLANTING BED BACKFILL MATERIAL, REFER TO SOIL PREPARATION SPECIFICATION.
 3. WIDTH OF TREE PIT SHALL BE 3 TIMES THE DIAMETER OF THE ROOT BALL, UNLESS TREE IS BEING PLANTED IN CONTINUOUS LANDSCAPE BEDS / PITS.

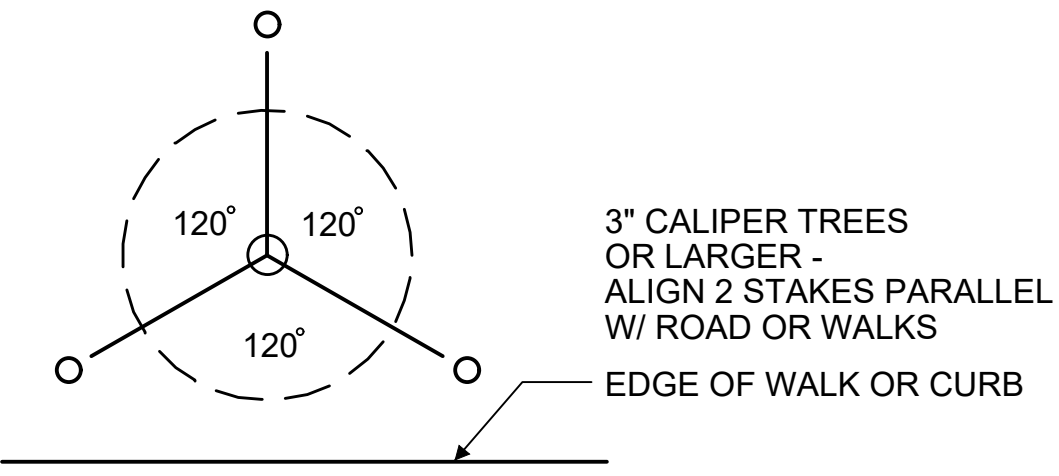
TREE PLANTING
SCALE 1/4" = 1'-0"



A. TREE STAKING ALONG ROAD OR WALKS



B. TREE STAKING IN OPEN SPACES



C. TREE GUYING

TREE STAKING LAYOUT
NO SCALE

Dagesse Company

157 South Champlain Street
Burlington, VT 05401

No.	Revision	Date	Apprd.

Designed by	MW	Checked by	MW
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Issued for	Local Review	Date	April 7, 2021
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Not For Construction

Drawing Title
Landscape Details

Drawing Number

L1.02

Sheet 13 of 14

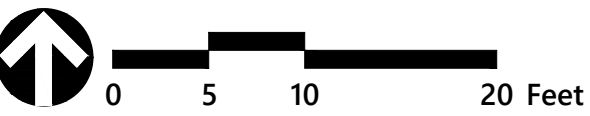
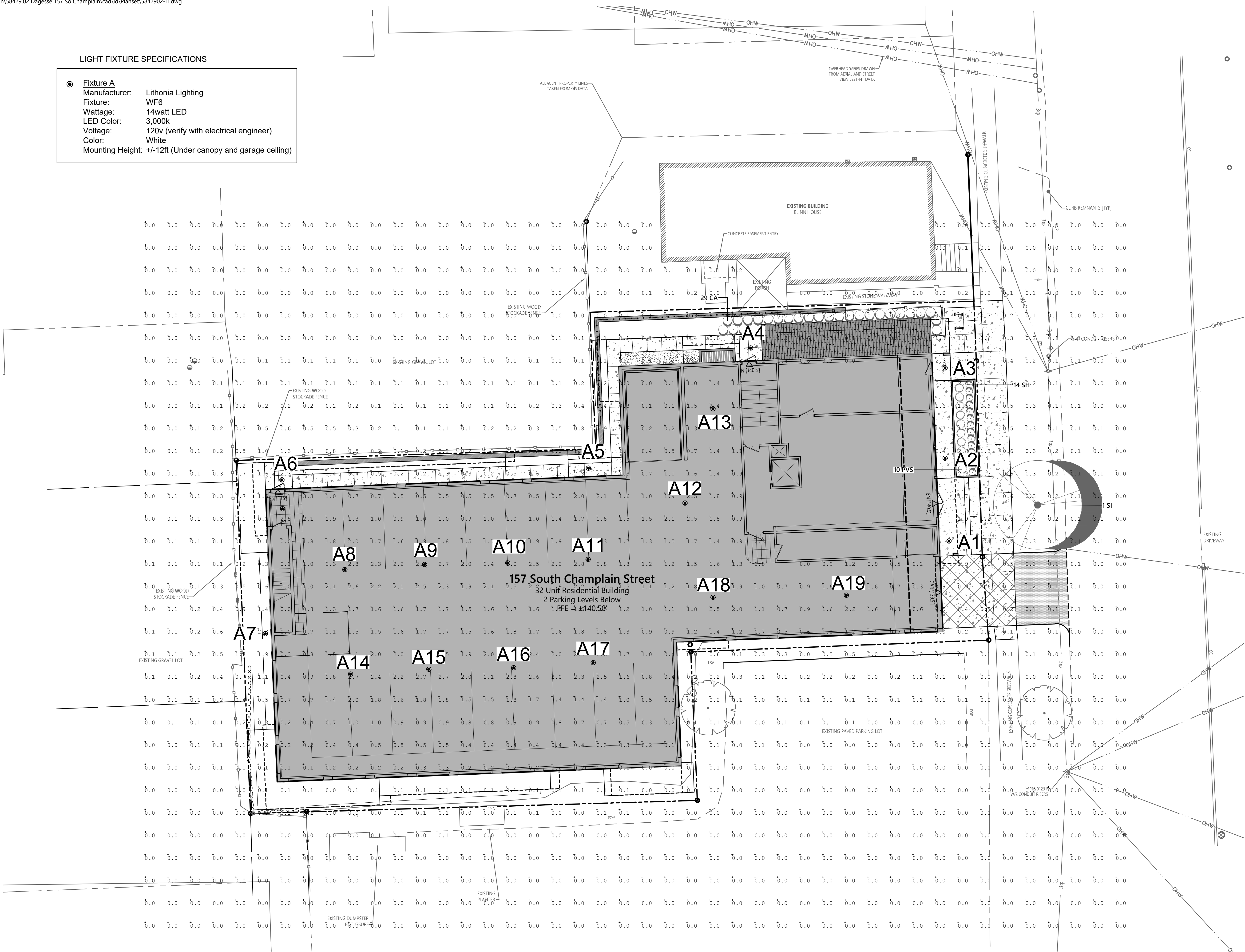
Project Number
58429.02



40 IDX Dr
Building 100 Suite 200
South Burlington, VT 05403
802.497.6100

LIGHT FIXTURE SPECIFICATIONS

- **Fixture A**
Manufacturer: Lithonia Lighting
Fixture: WF6
Wattage: 14watt LED
LED Color: 3,000k
Voltage: 120v (verify with electrical engineer)
Color: White
Mounting Height: +/-12ft (Under canopy and garage ceiling)



Dagesse Company
157 South Champlain Street
Burlington, VT 05401

No.	Revision	Date	Apprd.

Designed by	MW	Checked by	MW
Issued for	Local Review	Date	April 7, 2021

Not For Construction

Drawing Title
Lighting Plan

Drawing Number

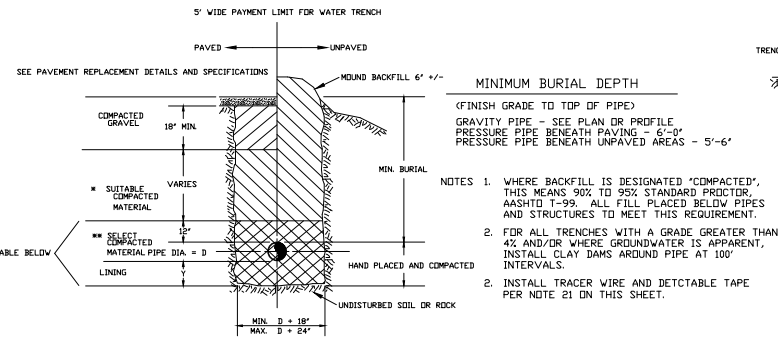
L2.00

Sheet 14 of 14

Project Number
58429.02

NOTES:

- Before construction of any utilities or improvements, the Contractor shall notify the Department of Public Works (DPW), IN WRITING, of intent to proceed.
- All water mains, fittings, appurtenances and other materials, and construction shall conform to all applicable AWWA, State and City codes, standards and regulations. In the case of conflict between these construction details and specifications and a code or regulation, the decision of the Vermont Department of Health or VTDEC Water Supply shall be binding.
 - All water mains, fittings, appurtenances shall be installed in a workmanlike manner. Installation shall be under the general inspection of the Public Works Department. Before any water line work is commenced by the Contractor, they shall notify the Public Works Department at least five (5) work days in advance of his intention to proceed.
 - Connection to an existing water main shall be done under the supervision of, and with the approval of the Public Works Department. The contractor shall provide accurate tie sheets for all new valves, fittings and curb stops. The contractor shall allow the city to access the construction site to obtain additional infrastructure information throughout the project.
 - Inspector employed by the Public Works Department shall be notified at least two (2) days in advance of all water line installations. Said inspector shall be on the premises for all water line installations.
 - As-Builts prepared by the Contractor are required by the Public Works Department at the time of the completion of the water system. The contractor shall provide accurate tie sheets for all new valves, fittings and curb stops. The contractor shall allow the city to access the construction site to obtain additional infrastructure information throughout the project.
 - All water mains shall have horizontal and vertical distances as detailed on this drawing.
 - All public and private water mains: 1) 4' or greater shall be C-900 pipe (per note 21 below); 2) less than 4' in diameter shall be ULTRA-HIGH WEIGHT, CTS POLYETHYLENE TUBING DESIGNED FOR A WORKING PRESSURE OF 200 PSI (AWWA C-901, ASTM-D-1248 AND ASTM-D-2737). All water line fittings shall be ductile iron, (AWWA C-110), cement-lined for water lines less than 4 inches in diameter; fittings (other than valves) shall MEET MANUFACTURER'S RECOMMENDATIONS AND MEET VERMONT ACT 193 REQUIREMENTS FOR LEAD CONTENT.
 - All buried valves shall conform to AWWA C-504 or C-509, and be resilient wedge gate valves up to 12 inch in size, and either resilient wedge or butterfly valves for larger sizes. All gate valves shall open right (clockwise) and shall have adjustable iron valve boxes extending to the finished grade (see Typical Details).
 - Hydrants shall be in accord with AWWA C-502, 3-way post type breakaway Kennedy K81-A, with two (2) 2-1/2" hose nozzles and one (1) 4-1/2" steamer nozzle. Nozzle threads shall be Roxbury double-seal. Hydrants shall be provided with a 6.5' bury (riser). In all cases, it is the Contractor's responsibility to check with the Public Works Department to secure approval of the selected hydrant(s) and assure compatibility. All Hydrant drains shall be permanently plugged, or a non-draining hydrant shall be installed. All hydrants shall be set back a minimum of three (3) feet from paved surfaces. In addition, wherever a traffic hazard appears to exist (in the opinion of the Public Works Department), the hydrant shall be protected by curbing and/or post-stanchions.
 - Curb boxes shall be Buffalo type with telescoping top and bolt-on caps.
 - All water lines and appurtenances shall be pressure and leak-tested, before being placed into service, according to AWWA Standard C-600. The test pressure shall be 200 psi (+/- 5psi), measured at or near the high point in the portion of the system being tested, and the test shall be run for two (2) hours. The Public Works Department shall be given at least twenty-four (24) hours notice before the test is to be conducted, and DPW personnel shall witness the test. Allowable leakage shall be computed by the following formula, $L = (S \times D \times \text{sq. root}(P)) / 133200$, where L=number of gallons allowed leakage per hour, S=length of pipe tested in feet, D=inches of nominal pipe diameter, P=average test pressure (psi gauge). The person(s) conducting the test(s) shall, IN WRITING, certify the results to the Public Works Department.
 - All water lines, before being put into service, shall be disinfected in accordance with the latest edition of AWWA C-651, or as directed by the Public Works Department. Contractor shall install 1" diameter tap in water main for chlorine injection. Tap shall be located as approved by the Public Works Department. The person(s) responsible for disinfection shall certify, IN WRITING, to the Public Works Department and Vermont Department of Health that this disinfection procedure was followed and the required minimum results were obtained. Contractor shall be responsible for all sampling and analysis costs. TAP USED FOR CHLORINATION SHALL BE CLOSED AND PLUGGED PRIOR TO BACKFILL. The contractor shall perform all construction activities in conformance with the latest edition of AWWA C-651. THE CONTRACTOR SHALL RECEIVE THE LATEST EDITION OF BURLINGTON'S WATER REPAIR FLOW CHART TO ENSURE CONFORMANCE WITH AWWA C-651. THE CITY REQUIRES BAC-1 SAMPLES BE COLLECTED AND TESTED ANY TIME THE EXISTING WATER SYSTEM IS CUT INTO.
 - Water main valves and curb stops shall be inside city right-of-way.
 - No valves, hydrants, curb stops, etc. shall be operated without prior approval by the Public Works Department.
 - All taps larger than 1" require the use of bronze saddles. SADDLES ARE REQUIRED FOR ALL TAPS ON PVC PIPE.
 - All brass unions and adapters shall be low-lead by Cambridge.
 - All corporations and curb stops shall be Cambridge with nitrile gaskets.
 - Water mains 4' and larger shall be AWWA C900 PVC pipe with a pressure class of 305 psi (DR14). Mains 2' or less shall conform to AWWA C501 and be HDPE CTS pipe with a pressure class of 200 psi (SDR 9). All plastic pipe (INCLUDING SERVICES) will require a 12 AWG high strength copper clad steel tracer wire with blue insulation fastened directly to the top of pipe with nylon tie wraps or electrical tape. This tracer wire shall be a continuous run (no splices) between valves with ends for attaching a locating signal at every valve box, end of pipe run or every 500' of pipe, whichever is less. If no valve boxes are located within 500' of each other, a magnetized tracer box is required. Waterproof splices shall be allowed in valve boxes as per the detail on this sheet. Tracer wires, tracer boxes and wire nuts shall be manufactured by Copperhead Industries or approved equal. In addition, detectable metallic underground tape labeled "Caution Buried Water Line Below" shall be manufactured by Trumbull Industries or approved equal and buried approx. 2' below finished grade.
 - Nitrile Butadiene Rubber (NBR) gaskets shall be used in lieu of the standard Styrene Butadiene Rubber (SBR) gaskets for C900 water pipe and fittings.

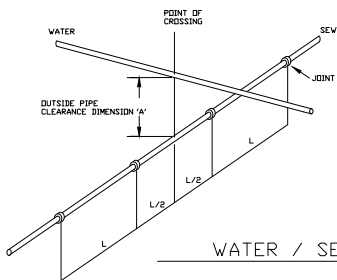


TYPICAL TRENCH DETAIL

N.T.S.

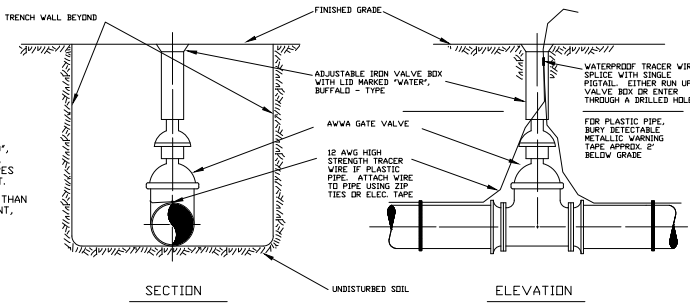
Y - DIMENSION	CONDITION & PIPE	* * SELECT MATERIAL	LINING
0'	DUCTILE IRON PIPE IN "ORDINARY SOIL"	TYPE I II OR III	-
6'	ALL PIPE OVER BEDROCK OR LEDGE	TYPE II OR III	SAND OR TYPE III
4'	DUCTILE IRON PIPE IN CLAY OR MUCK	TYPE II OR III	SAND
6'	PLASTIC - ALL	SAND	SAND

- SUITABLE MATERIAL SHALL CONTAIN NO STONES GREATER THAN 4" IN DIAMETER, NO FROZEN LUMPS, AND ONLY MINOR AMOUNTS OF CLAY OR ORGANIC MATERIAL. ALL MATERIAL TO BE PLACED IN MAXIMUM OF 12" LIFTS AND COMPACTED BEFORE PLACING NEXT LIFT.
- TYPE I MATERIAL SHALL BE EITHER GRAVEL OR EXCAVATED MATERIAL CONTAINING NO STONES GREATER THAN 1 1/2" IN DIAMETER, NO FROZEN MATERIAL, NO CLAY, AND NO ORGANIC MATERIAL.
- TYPE II MATERIAL SHALL BE CLEAN, HARD, CRUSHED OR NATURAL STONE WITH A GRADATION BY WEIGHT OF 100% PASSING A 1 1/2" SQUARE OPENING, NOT MORE THAN 25% PASSING A 3/4" SQUARE OPENING, AND NOT MORE THAN 5% PASSING A 1/2" SQUARE OPENING.
- TYPE III MATERIAL SHALL BE CLEAN, HARD, CRUSHED STONE FREE FROM COATINGS AND THOROUGHLY WASHED WITH A GRADATION BY WEIGHT OF 100% PASSING A 1" SQUARE OPENING AND 0 TO 5% PASSING A 1/4" SQUARE OPENING.



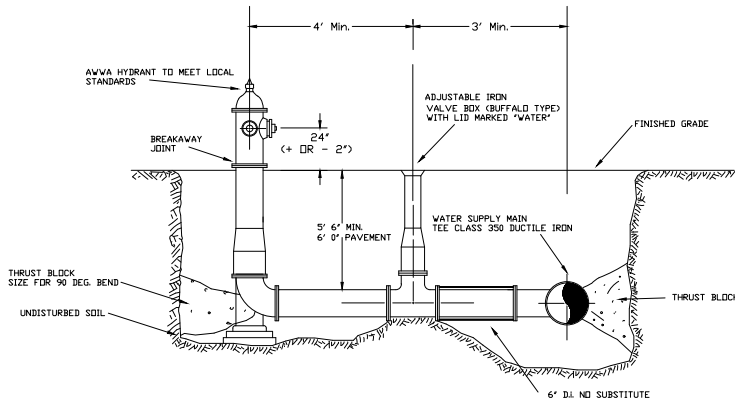
CONSTRUCTION RESTRICTIONS

- IN ALL NEW CONSTRUCTION, DIMENSION "A" SHALL NEVER BE LESS THAN 18 INCHES.
- WITH ALL NEW CONSTRUCTION, THE CROSSING SHALL BE ARRANGED AS SHOWN IN THIS DIAGRAM, SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.
- IF THE WATER MAIN MUST PASS BENEATH THE SEWER IN NEW CONSTRUCTION, OR IT IS IMPOSSIBLE TO MAINTAIN THE 18" INCH SEPARATION DUE TO EXISTING UTILITY PREVIOUS CONSTRUCTION ONLY, THEN ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER, PLUS THE WATER MAIN OR THE SEWER SHALL BE COMPLETELY ENCASED IN A SEAMLESS SLEEVE CONSISTING OF A FULL MINIMUM 19 FEET LENGTH OF PIPE (e.g. SDR 35 PVC), CENTERED ON THE CROSSED UTILITY.



BURIED GATE VALVE DETAIL

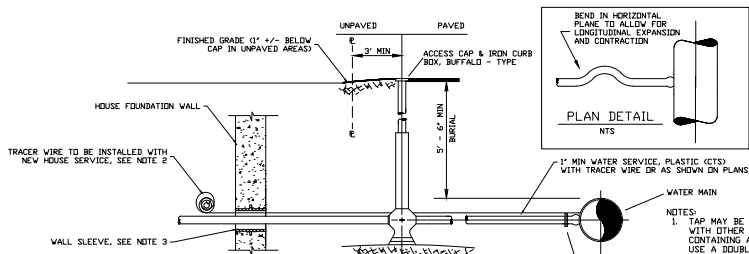
N.T.S.



- ALL HYDRANT DRAINS MUST BE PLUGGED SEE SPECIFICATION NO. 8
- WHERE VALVE CANNOT BE RESTRAINED TO MAIN TEE, ANCHOR VALVE AS IN BURIED GATE VALVE DETAIL
- USE MEGALUG RETAINER GLANDS FOR ALL CONNECTIONS

TYPICAL HYDRANT INSTALLATION

N.T.S.

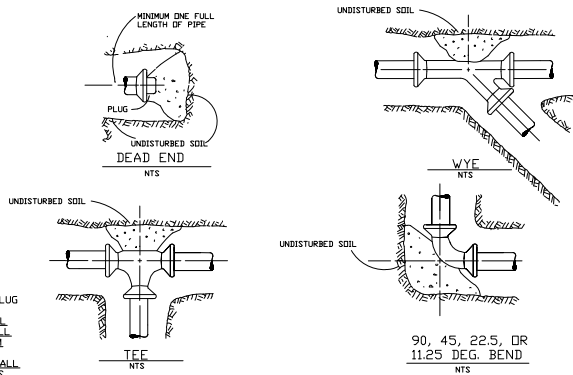


CURB STOP WITH BOX - TAPPED OR TEE CONNECTION

N.T.S.

- NOTES:
- TAP MAY BE MADE DIRECTLY TO DUCTILE IRON PIPE WITH OTHER PIPE MATERIALS USE EITHER A COUPLING CONTAINING A FACTORY - TAPPED BRASS BUSHING OR USE A DOUBLE STRAP SERVICE CLAMP. USE TEFLON TAPE ON THREADS.
 - IF PLASTIC (CTS) PIPE IS USED FOR HOUSE SERVICE, TRACER WIRE IS TO BE INSTALLED FROM THE MAIN, AROUND THE CURB STOP INTO THE HOUSE WITH A COIL OF ADDITIONAL TRACER WIRE INSIDE THE HOUSE.
 - WALL SLEEVE SHALL BE TWO (2) TIMES THE DIAMETER OF THE HOUSE SERVICE BEING INSTALLED.
 - IN THE EVENT THAT A HOUSE SERVICE IS NOT BEING INSTALLED FROM THE CURB STOP, THE CONNECTION SHALL BE SEALED FOR FUTURE INSTALLATION.

- NOTES:
- ON ALL MECHANICAL JOINTS, USE MEGALUG RETAINER GLANDS.
 - POURED CONCRETE THRUST BLOCKS WILL NOT BE ALLOWED. THRUST BLOCK SHALL BE PRECAST CONCRETE WITH A MINIMUM COMPRESSION STRENGTH OF 3,000 PSI. PRECAST CONCRETE THRUST BLOCKS SHALL MEET THE SURFACE AREA REQUIREMENTS PRESENTED IN THE TABLE.



THRUST BLOCK DETAILS

N.T.S.

MINIMUM AREA OF BEARING SURFACE OF CONC. THRUST BLOCKS

(IN SQUARE FEET)

3"				4"				6"				8"				12"				SOIL CONDITION	SAFE BEARING CAP (PSF)
ENDS TEE	4" ELB.	22.5° ELB.	90° ELB.	ENDS TEE	4" ELB.	22.5° ELB.	90° ELB.	ENDS TEE	4" ELB.	22.5° ELB.	90° ELB.	ENDS TEE	4" ELB.	22.5° ELB.	90° ELB.	ENDS TEE	4" ELB.	22.5° ELB.	90° ELB.		
0.5	0.5	0.5	0.5	0.5	1.0	0.5	0.5	1.0	1.5	1.0	0.5	2.0	2.5	1.5	1.0	4.0	5.5	3.0	1.5	SOUND SHALE	10,000
1.0	1.0	0.5	1.5	2.0	1.0	0.5	3.0	4.0	2.0	1.0	4.5	6.5	3.5	2.0	10.0	14.0	7.5	4.0	CEMENTED GRAVEL	4,000	
1.0	1.5	1.0	0.5	2.0	2.5	1.5	1.0	3.5	5.0	3.0	1.5	6.0	8.5	5.0	2.5	13.0	18.5	10.0	5.0	COARSE & FINE SAND	3,000
1.5	2.5	1.5	1.0	2.5	3.5	2.0	1.0	5.5	7.5	4.0	2.0	9.0	13.0	7.0	3.5	20.0	27.5	15.0	8.0	MEDIUM CLAY (CAN BE SHALE)	2,000
3.0	4.5	2.5	1.5	5.0	7.0	4.0	2.0	10.5	15.0	8.0	4.0	18.0	25.0	14.0	7.0	39.0	55.0	30.0	15.0	SOFT CLAY	1,000

MAXIMUM WATER PRESSURE = 300 PSI NOTE: REDUCER BEARING AREA = 45 DEG. BEND, LARGER PIPE

REV. NO.	DATE	DESCRIPTION	DRAWN	CHECKED



WATER SYSTEM DETAILS		DESIGNED: SR/MSL	DRAWING NO. D-1
WATER SYSTEM CAPITAL IMPROVEMENTS 2019 WATER MAIN REHABILITATION		DRAWN: SR/MSL	
CITY OF BURLINGTON, VT		CHECKED: SR/MSL	
		SCALE: NONE	
		DATE: 12/11/18	

Stormwater Management Summary

Impervious Surface Summary

Existing: 6,230 SF (0.143 acre)

Proposed: 10,935 SF (0.251 acre)

Peak Flow Summary Table

Storm Event	Existing Peak Discharge (CFS) (Combined Site Discharge, All POIs)	Treatment Target (Qp-1)*	Proposed Conditions Qp (all POIs)	Flow Reduction
1 Year (1.9")	0.44	0.22	0.10	77.3%
10 Year (3.2")	0.75	NA	0.53	29.3%

*Treatment Target = Match Qp-1 from site as if 50% existing impervious converted to meadow.

Conformance with CSO Offset Policy:

The Burlington DPW CSO Offset Policy requires treatment for 0.5 SF existing impervious per 1.0 GPD of proposed WW flow. Project WW demand = 5,460 GPD. Therefore 5,460 GPD * 0.5 SF/GPD = 2,730 SF of existing surfaces require treatment. Within Main Plant CSO-shed, treatment priority is detention of peak flow during Q-1 event.

Summary of Treatment for Existing Surfaces:

Existing Impervious Surface: 6,230 SF

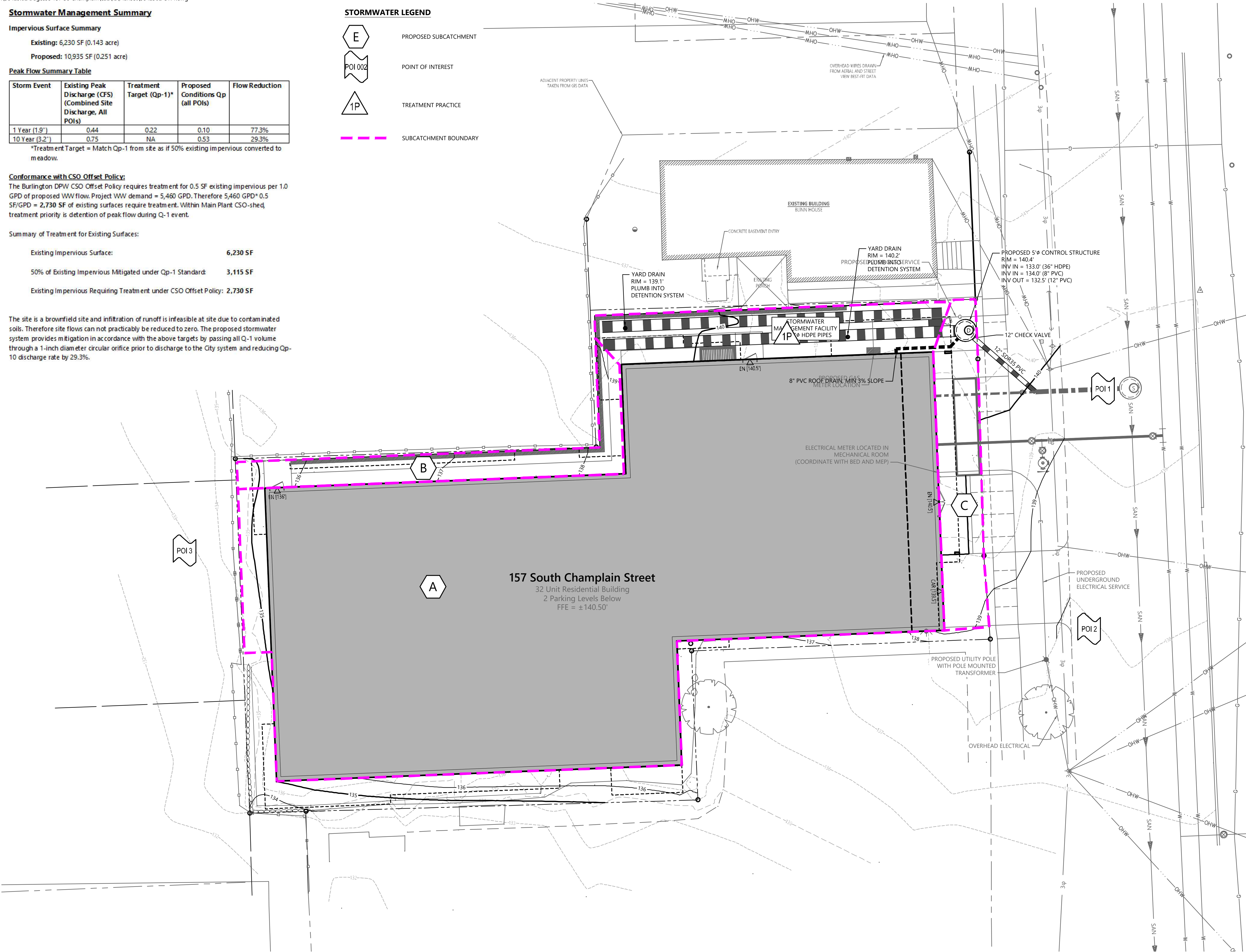
50% of Existing Impervious Mitigated under Qp-1 Standard: 3,115 SF

Existing Impervious Requiring Treatment under CSO Offset Policy: 2,730 SF

The site is a brownfield site and infiltration of runoff is infeasible at site due to contaminated soils. Therefore site flows can not practicably be reduced to zero. The proposed stormwater system provides mitigation in accordance with the above targets by passing all Q-1 volume through a 1-inch diameter circular orifice prior to discharge to the City system and reducing Qp-10 discharge rate by 29.3%.

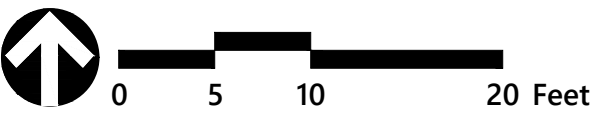
STORMWATER LEGEND

- E PROPOSED SUBCATCHMENT
- POI 002 POINT OF INTEREST
- 1P TREATMENT PRACTICE
- SUBCATCHMENT BOUNDARY





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Dagesse Company

157 South Champlain Street
Burlington, VT 05401

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Issued for	Local Review	Date	Mar. 19, 2021
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Not For Construction

Drawing Title

Proposed Stormwater Management Plan

Drawing Number

SW1

Sheet 1 of 2

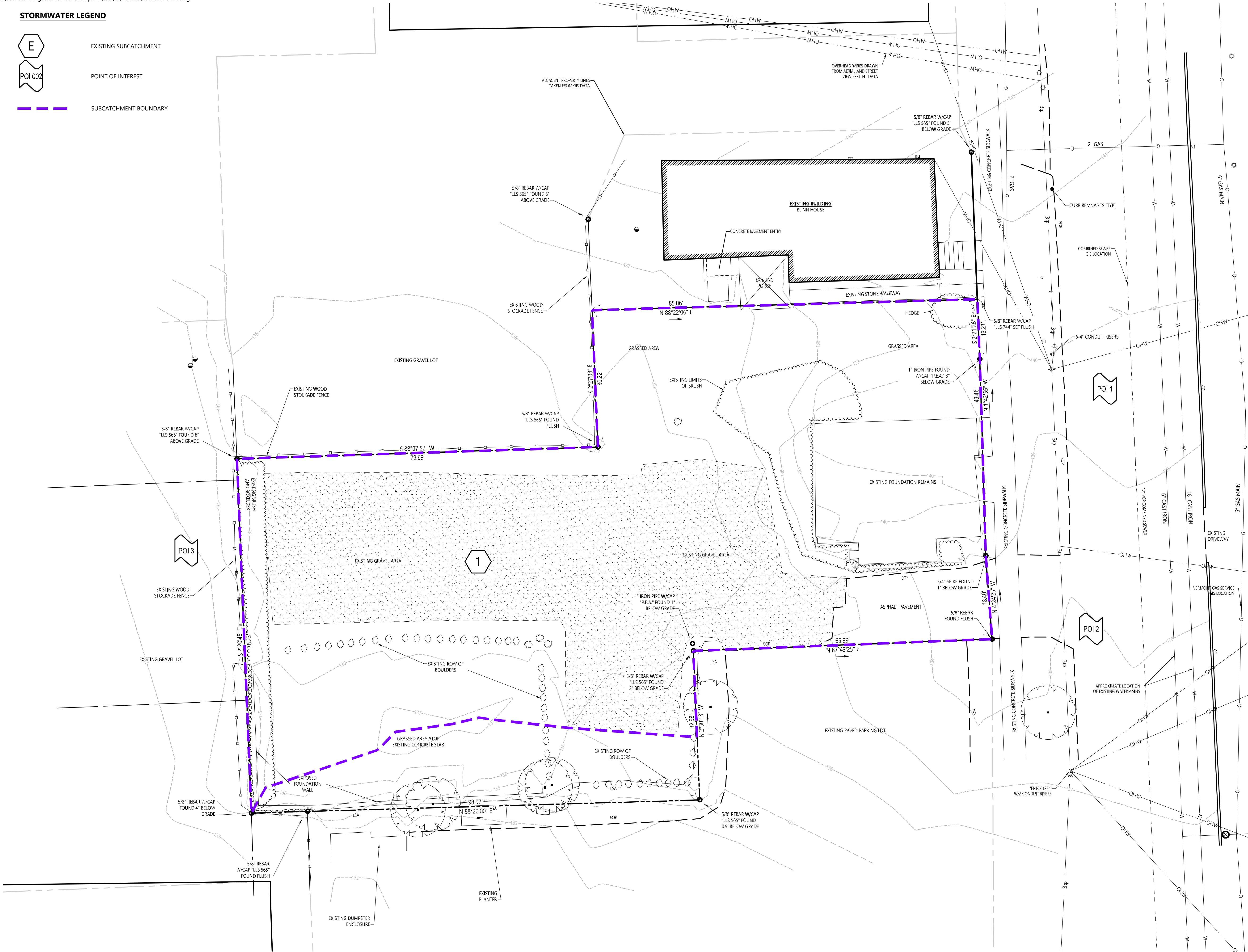
Project Number
58429.02

STORMWATER LEGEND

- E

EXISTING SUBCATCHMENT
- POI 002

POINT OF INTEREST
- SUBCATCHMENT BOUNDARY





vhb.com

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Drawing Title
**Existing Conditions
Stormwater Plan**

Drawing Number

SW2

Sheet 2 of 2

Project Number
58429.02